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SELLING EXPENSES AND THEIR CONTROL

A Study in the Retail Distribution of Clothing

BY

NORTHWESTERN UNIVERSITY SCHOOL OF COMMERCE
BUREAU OF BUSINESS RESEARCH

HORACE SECRIST, DIRECTOR

IN CO-OPERATION WITH THE

NATIONAL ASSOCIATION OF RETAIL CLOTHIERS



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PREFACE

This study was undertaken for two primary purposes: first, to determine what it costs to sell clothing in stores operating as independent units, and second, to find, if possible, the principles governing these costs and the methods by which they may be controlled.

A previous study made by the Bureau of the retail cost of distributing clothing showed that it was necessary to classify stores by years, by size and by location. Accordingly, such a classification is provided for in this analysis. But here the study is pushed further. It answers the question: What are the conditions which control the amounts of selling expense? and it measures the degree to which the control is exerted under different conditions of store operation.

The study was begun on the basis of certain hypotheses which, on an *a priori* basis, seemed to summarize the conditions controlling selling expense. These hypotheses were tested statistically on the basis of store records for different years and for stores of different size and location. Briefly, the analysis has led to the conclusion that

the relations of selling expense to sales and to total operating expense are governed by conditions which, to a large degree, are subject to effective merchandising control; that they vary according to clearly defined principles; and that these principles can be stated and the conditions of expense distribution under them measured. In a word, the analysis has led to the belief that there are certain master or controlling facts behind individual facts, as they show themselves in modern business, and that these may be revealed through statistical analysis of mass information. There is a science of business. Its principles can be stated so that those who are interested can, if they will, act in the light of them rather than in the grip of blind routine.

In the preparation of this study, the value of the services of the entire staff of the Bureau is cheerfully acknowledged. Special mention, however, should be made of the part which has been taken by Miss Blanche Altman, assistant to the Director, and by Miss Irmgard J. Grabbe, the Director's secretary.

Northwestern University School of Commerce,
Bureau of Business Research,
HORACE SECKIST, *Director*

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I. INTRODUCTION

The Bureau of Business Research secured the data for this study from the books of the members of the National Association of Retail Clothiers by means of questionnaires.

After completing its study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*, the Bureau felt that it would be unfortunate if the material on selling expense and expense ratios were left in its files unanalyzed. Accordingly, after consulting with the trade as to the conditions which seem to determine the amounts of selling expense under different conditions of store operation, certain tentative hypotheses were set up for the purpose of determining numerically the amounts of selling expense for stores under the conditions established, and of discovering, if possible, means by which they might be reduced. The hypotheses which proved to be of no significance were abandoned. The others have been fully tested out, and it is these with which the volume deals.

The plan of the study is as follows: It includes an analysis, first, of total selling expense in relation to sales and to total operating expense; second, of the amounts of wages and salaries in relation to sales and to selling expense; third, of the amounts spent for advertising in relation to sales and to selling expense; fourth, of other selling expense in relation to sales and to total selling expense; fifth, of ratios of store operation for

stores classified according to the relative rates of profits per \$100 of net sales for the year 1919.

In each of these major sections, with the exception of the part relating to profits, an analysis is made of data for stores from year to year; for stores classified according to the amounts of stock carried, as indicated by the amounts of inventory or average stock in relation to sales; for stores classified according to the amounts sold per full-time salesperson and to the methods by which salesmen were paid in 1919; for stores classified according to the rental payments per 100 square feet of floor space, and the amounts invested in fixtures in relation to sales and to square feet of floor space; and, finally, for stores classified according to the amounts spent for advertising in relation to sales. The Table of Contents outlines more fully the plan of the entire discussion.

In order accurately to measure the amounts of selling expense and of its components, two types of units are used: First, those in which the different elements of expense are expressed in terms of sales, of total expense, or of selling expense, as the case may be, and second, those in which conditions other than sales, selling expense, or total expense are reduced to a common basis. These measures, as they are used in the text discussion and as computed, are shown in the Summary. The purpose of expressing the amounts in

various forms is to reduce, as nearly as possible, the different conditions of store operation to a unit basis.

It has not been thought necessary, in view of the use of simple and composite units, to print the frequencies with which the different amounts of expense occur. The classification is detailed and the units of comparison are adjusted so as to make this largely, if not wholly, unnecessary. Moreover, to have printed the frequencies would have unduly extended the treatment.

The analysis has been made with two points of view in mind: First, to determine standards or norms of expense distribution and second, to establish the conditions controlling the amounts of expense and to measure the extent to which they may be reduced.

The analysis is necessarily detailed, but no excuse needs to be offered for this in view of the purpose which the Bureau had in making the study. The features which distinguish it from those in similar fields are number of instances included, scope of the treatment, and method followed. The study, undertaken seriously, with thought other than of subjective scientific analysis the data and of presenting the facts in a manner most helpful to those interested in this field of distribution. It is believed that the volume of information on the basis of which merchants may control their transactions, test the reasonableness of their expenses, and thereby actually reduce them.

II. SUMMARY

It is difficult to summarize a study of this character within brief compass. The retail stores which are studied differ in size and location, in amounts of their expenses, and in many important respects. In order to account of these differences, the description and analysis are necessarily detailed and, in some instances,

TABLE 31

Three types of facts have been determined. First, the actual expense for standards for stores under various conditions of operation, and the tendencies for the amounts to increase or decrease from year to year with the size and location of the stores, and with varying conditions of operation.

Simply to have listed the amounts of expense for stores as classified would have required an extensive summary and would have resulted in useless duplication. Moreover, to have specified the expense tendencies would have required more space than could be devoted to this phase of the study.

Consequently, all that is attempted in this summary is to indicate the more important amounts of expenditure and to enumerate in a general way a number of the expense tendencies which have been determined. While the summary is complete within itself, it should not be considered as a substitute for the detailed discussion. In the use of the Index, those who are interested may readily turn to the lists of expenditure for stores classified in different ways and, by

following the text in connection with the tables, determine the limitations and conditions which govern the expense tendencies.

1.—UNITS OF MEASUREMENT USED IN THE TABLE AND TEXT.

In order accurately to express the amounts of expenditure for selling expense and its components a variety of units has been used. These units are set out in the table on page 4 under two headings: First, in the form of statements, as used in the text and tables, and second, as formulæ showing the method by which they are computed. The common bases of comparison are two: total net sales and selling expense. With these, however, are combined certain other measures, described in the table, the purpose being to reduce to a unit basis different conditions of operation. To illustrate: Total selling expense and its components are expressed in terms of \$100 total net sales. This is equivalent, of course, to expressing them as percentages of sales. In order, however, to provide for the conditions under which sales are made, a more complex measure is used which will reduce the sales to a unit basis in terms of the amount sold per sales-person. Expressed in this form, the unit of expense becomes: Selling expense per \$100 total net sales per \$1,000 sold per full-time sales-person. In this manner only is it possible to reduce to a uniform

basis stores of different size with different numbers of sales-people and with various amounts sold per person.

If merchants will study the expense ratios which have been developed and compare them with sim-

Item No.	Units of Measurement Used in Text and Tables	Formulae Used to Compute Units of Measurement	Item No.	Units of Measurement Used in Text and Tables	Formulae Used to Compute Units of Measurement
SIMPLE UNITS					
1	Selling Expense per \$100 of Total Net Sales	$\frac{SE}{TNS(\text{in } 00's)}$	9	Net Profit per \$100 of Total Net Sales	$\frac{\text{Net Profit}}{TNS(\text{in } 00's)}$
2	Wages & Salaries, Advertising, or Other Selling Expense per \$100 of Total Net Sales	$\frac{W \& S, Adv., \text{ or } OSE}{TNS(\text{in } 00's)}$		Net Profit	$\frac{\text{Gross Margin} - TE - \text{Misc. Charges} + \text{Misc. Income}}{TNS(\text{in } 00's)}$
3	Wages & Salaries, Advertising, or Other Selling Expense per \$100 of Selling Expense	$\frac{W \& S, Adv., \text{ or } OSE}{SE(\text{in } 00's)}$	10	Sales per \$100 of Wages and Salaries	$\frac{TNS}{W \& S(\text{in } 00's)}$
4	Selling Expense per \$100 of Total Expense	$\frac{SE}{TE(\text{in } 00's)}$	11	Sales per \$100 of Advertising	$\frac{TNS}{Adv.(\text{in } 00's)}$
5	Inventory per \$100 of Total Net Sales	$\frac{Inv.}{TNS(\text{in } 00's)}$	12	Sales per Full-time Sales-person	$\frac{TNS}{FTSP}$
6	Floor Space per \$100 of Total Net Sales	$\frac{Sq. Ft.}{TNS(\text{in } 00's)}$	13	Sales per 100 Sq. Ft. of Floor Space	$\frac{TNS}{Sq. Ft.(\text{in } 00's)}$
7	Fixture Account per \$100 of Total Net Sales	$\frac{Fixt. Acct.}{TNS(\text{in } 00's)}$	14	Selling Expense per 100 Sq. Ft. of Floor Space	$\frac{SE}{Sq. Ft.(\text{in } 00's)}$
8	Gross Margin per \$100 of Total Net Sales	$\frac{\text{Gross Margin}}{TNS(\text{in } 00's)}$	15	Rent per 100 Sq. Ft. of Floor Space	$\frac{\text{Rent}}{Sq. Ft.(\text{in } 00's)}$
	Gross Margin	$TNS - \text{Cost of Mdee.}$	16	Fixture Account per 100 Sq. Ft. of Floor Space	$\frac{\text{Fixt. Acct.}}{Sq. Ft.(\text{in } 00's)}$
COMPOSITE UNITS					
17	Expense(SE, W & S, or Adv.) per \$100 of Total Net Sales per Amount Sold per \$1 of Inventory	$\frac{\text{Expense}}{TNS(\text{in } 00's)} + \frac{TNS}{Inv.}$	17	Expense(SE, W & S, or Adv.) per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person	$\frac{\text{Expense}}{TNS(\text{in } 00's)} + \frac{TNS(\text{in } 000's)}{FTSP}$
18	Selling Expense per \$100 of Total Net Sales per Amount Sold per \$1 of Average Inventory	$\frac{SE}{TNS(\text{in } 00's)} + \frac{TNS}{\text{Av. Inv.}}$	23	Selling Expense per \$100 of Total Sales per \$1,000 of Sales per Full-time Sales-person	$\frac{SE}{TE(\text{in } 00's)} + \frac{TNS(\text{in } 000's)}{FTSP}$
	Average Inventory	$\frac{1918 \text{ Inv.} + 1919 \text{ Inv.}}{2}$	24	Expense(W & S or Adv.) per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person	$\frac{\text{Expense}}{SE(\text{in } 00's)} + \frac{TNS(\text{in } 000's)}{FTSP}$
19	Expense(SE, W & S, or Adv.) per \$100 of Total Net Sales per Stock Turnover	$\frac{\text{Expense}}{TNS(\text{in } 00's)} + \text{Turn.}$	25	Expense(SE, W & S, or Adv.) per \$100 of Total Net Sales per Sales per Sq. Ft. of Floor Space	$\frac{\text{Expense}}{TNS(\text{in } 00's)} + \frac{TNS}{Sq. Ft.}$
	Stock Turnover	$\frac{\text{Cost of Mdee.}}{\text{Av. Inv.}}$	26	Expense(W & S or Adv.) per \$100 of Selling Expense per Sales per Sq. Ft. of Floor Space	$\frac{\text{Expense}}{SE(\text{in } 00's)} + \frac{TNS}{Sq. Ft.}$
	Cost of Merchandise	$1918 \text{ Inv.} + 1919 \text{ Net Purch.} + 1919 \text{ Freight} - 1919 \text{ Inv.}$			
20	Selling Expense per \$100 of Total Expense per Stock Turnover	$\frac{SE}{TE} + \text{Turn.}$			
21	Expense(W & S or Adv.) per \$100 of Selling Expense per Stock Turnover	$\frac{\text{Expense}}{SE(\text{in } 00's)} + \text{Turn.}$			

ABBREVIATIONS USED

Adv.....Advertising expenditures	OSE.....Other selling expense
Av. Inv.....Average of 1918 and 1919 inventories	Purch.....Purchases
Cost of Mdee.....Cost of merchandise sold	Sq. Ft.....Total number of square feet of floor space
Fixt. Acct.....Amount invested in fixtures	SE.....Total selling expense
FTSP.....Number of full-time sales-people	TE.....Total operating expense
Inv.....Inventory taken at the end of the year	TNS.....Total net sales
	Turn.....Number of times stock is turned
	W & S.....Wages and salaries

This unit is used only as an illustration. But the same principles apply to all the units and a similar explanation justifies their use.

ilar ones in their own businesses, they cannot help but profit by the results of this study. An analogy will serve to make the point plain. If one were

placed in a foreign country with no knowledge of the unit of value, it would be impossible for him to comprehend the prices of the most common articles of consumption without first expressing them in terms of his own price-unit and then converting them into the price-unit of the foreign country. That is, some standard must be used. Until recently, retail establishments have had no standards by which they could measure their own operating expenses and their merchandising practices. One purpose of this volume in the field of selling expense is to supply such standards.

2.—AMOUNTS OF SELLING EXPENSE AND ITS COMPONENTS, WAGES AND SALARIES, ADVERTISING, AND OTHER SELLING EXPENSE, FOR STORES CLASSIFIED BY YEARS, BY SIZE, AND BY LOCATION.

In the following summary of selling expense and its components, the amounts are expressed in terms of sales, total expense, and selling expense, use being made of the simple and complex units which are described above. The tables and charts refer only to the conditions named therein. It is impossible briefly to set out all of the conditions which determine the amounts of selling ex-

TABLE A

Classified Total Net Sales (in 000's)	Classified Selling Expenses	Amounts of Classified Selling Expenses per \$100 of Total Net Sales																																			
		1919												1918												1914											
		Actual	Graphic											Actual	Graphic											Actual	Graphic										
			\$0	\$2	\$4	\$6	\$8	\$10	\$12	\$0	\$2	\$4	\$6		\$8	\$10	\$12	\$14	\$0	\$2	\$4	\$6	\$8	\$10	\$12		\$14										
Average	Total	\$10.44												\$10.94												\$11.48											
	Wages & Salaries	6.98												7.37												7.52											
	Advertising	2.22												2.22												2.61											
	Other	1.24												1.35												1.35											
Under \$40	Total	6.77												8.09												9.15											
	Wages & Salaries	4.50												5.68												6.37											
	Advertising	1.46												1.53												1.86											
	Other	0.81												0.88												0.92											
\$40 to \$80	Total	7.64												9.43												11.14											
	Wages & Salaries	5.50												6.53												7.58											
	Advertising	1.33												1.65												2.23											
	Other	0.81												1.23												1.33											
\$80 to \$180	Total	10.48												10.88												11.95											
	Wages & Salaries	7.18												7.12												7.66											
	Advertising	2.04												2.41												2.96											
	Other	1.26												1.36												1.33											
\$180 & over	Total	11.44												12.58												15.93											
	Wages & Salaries	7.40												8.44												8.46											
	Advertising	2.65												2.59												3.62											
	Other	1.59												1.55												1.93											

pense and its components, and the reader is urged not to be contented with reading only the Summary, but to consult the detailed treatment under the respective headings.

In the body of the text, different groups of stores are used, the purpose being to utilize all the information which is available for the combined and the individual years. In the Summary, however, in most cases, the tables show data for the three years 1919, 1918, and 1914, combined. In some instances it is possible to use but one year and in such cases both the tables and the discussion indicate this fact.

In the present section and in Tables A, B, and C, the amounts of selling expense are expressed in terms of sales. Subsequent discussion relates these amounts to total and to selling expense.

A.—Amounts of Selling Expenses per \$100 Total Net Sales, for Stores Classified by Size and by Location.

The analysis of selling expense and its components is based upon the records of 154 stores for the years 1919, 1918, and 1914. In 1914 selling expense constituted \$11.48 per \$100 total net sales. In 1918 it was \$10.94; in 1919, \$10.44. In 1914, \$7.52 of the \$11.48 was spent for wages and salaries, \$2.61 for advertising, and \$1.35 for other selling expenses. In 1918 these amounts were \$7.37, \$2.22, and \$1.35. In 1919 they were, respectively, \$6.98, \$2.22, and \$1.24. For the combined years, out of a

total selling expense of \$10.82, \$7.22 went to wages and salaries paid to salesmen, \$2.30 to advertising, and \$1.30 to other selling expenses. Table A shows the amounts of total selling expense and its components for stores classified by size, for the years 1919, 1918, and 1914.

Table A shows that the amounts of selling expense and of its components in terms of sales in each of the years increase as the stores increase in size. Moreover, this condition obtains for the combined years as is shown in Table B. In these years, total selling expense for the stores with annual sales under \$40,000 is \$8.49. For those with sales of \$40,000 to \$80,000, it is \$9.34; for those with sales of \$80,000 to \$180,000, it is \$10.89; and for those with sales of \$180,000 and over, \$12.05. The amounts of total selling expense and its constituent parts are shown in Table B.

For the combined years the total selling expense per \$100 total net sales is larger for the stores in the large cities—those with population of 40,000 and over—than for those in the small cities—those with population under 40,000. The average for the stores in the first group is \$12.17 and for those in the second group, \$9.40. Moreover, for all stores, each element of expense is larger for the stores in the large, than for those in the small cities. When the stores are classified by size, total selling expense for each group is larger for the stores in the large than for those in the small cities. This condition generally obtains for each element of expense.

TABLE B

Classified Total Net Sales (in 000's)	Classified Selling Expenses	Amounts of Classified Expenses per \$100 of Total Net Sales																												
		Total (Average)												Cities with Population under 40,000						Cities with Population of 40,000 & over										
		Actual	Graphic											Actual	Graphic					Actual	Graphic									
			\$0	\$2	\$4	\$6	\$8	\$10	\$12	\$14	\$0	\$2	\$4		\$6	\$8	\$10	\$12	\$0		\$2	\$4	\$6	\$8	\$10	\$12	\$14			
Average	Total	\$10.82												\$9.40						\$12.17										
	Wages & Salaries	7.22												6.69						7.72										
	Advertising	2.50												1.78						2.80										
	Other	1.10												0.93						1.65										
Under \$40	Total	8.49												8.34						10.53										
	Wages & Salaries	5.91												5.73						8.13										
	Advertising	1.70												1.69						1.77										
	Other	0.88												0.92						0.43										
\$40 to \$30	Total	9.34												8.76						11.48										
	Wages & Salaries	6.51												6.30						7.63										
	Advertising	1.72												1.60						2.24										
	Other	1.11												0.86						1.58										
\$30 to \$100	Total	10.89												10.11						12.32										
	Wages & Salaries	7.26												7.11						7.36										
	Advertising	2.33												1.98						2.91										
	Other	1.30												1.02						2.05										
\$100 & over	Total	12.05												10.47						12.26										
	Wages & Salaries	7.84												7.84						7.64										
	Advertising	2.71												1.68						2.85										
	Other	1.50												0.95						1.87										

The amounts for the stores in the two city-groups are given in Table B.

In Table C the amounts of selling expense and of its components for stores classified by size are shown per \$100 total net sales expressed in different units. The table gives the number of stores to which the figures apply, the years which are involved, and the table numbers in the text in which the detail, under more elaborate classifications, may be found. It is unnecessary to indicate the amounts, although for summary purposes it may be well to indicate their direction of change. Section I of the table shows that the amounts of selling expense, of wages and salaries, of

advertising, and of other selling expense increase as the stores increase in size. To this general rule there are no exceptions.

B.—Amounts of Selling Expenses per \$100 Total Net Sales per Stock Turnover, for Stores Classified by Size.

Section II of Table C shows the amounts of selling expense, wages and salaries, and advertising per \$100 total net sales per stock turnover. As the stores increase in size these amounts increase. The result of expressing them on a per-turn basis is to modify the rate at which the expenses increase for stores of increas-

TABLE C

Classified Total Net Sales (in 000's)	Amounts of Classified Selling Expense													
	I				II			III			IV			V
	Per \$100 of Total Net Sales				Per \$100 of Total Net Sales per Stock Turnover			Per \$100 of Total Net Sales per Amount Sold per \$1 of Inventory			Per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person			Per \$100 of Total Net Sales per Sales per Sq. Ft.
	Total Selling Expense	Wages & Salaries	Advertising	Other Expenses	Total Selling Expense	Wages & Salaries	Advertising	Total Selling Expense	Wages & Salaries	Advertising	Total Selling Expense	Wages & Salaries	Advertising	Total Selling Expense
average	\$10.32	\$7.22	\$2.30	\$1.30	\$4.02	\$3.03	\$1.02	\$4.06	\$2.74	\$0.87	\$0.67	\$0.45	\$0.14	\$0.39
Under \$40	8.49	6.91	1.70	0.88	4.00	2.84	0.78	4.74	3.31	0.94	0.82	0.58	0.16	0.43
\$40 to \$80	9.34	6.81	1.72	1.11	4.14	2.98	0.76	4.26	3.00	0.77	0.69	0.40	0.12	0.38
\$80 to \$150	10.89	7.28	2.33	1.30	5.35	3.61	1.05	6.35	2.90	0.94	0.65	0.43	0.14	0.42
\$150 & over	12.05	7.84	2.71	1.50	4.06	2.55	1.00	3.39	2.21	0.76	0.60	0.39	0.13	0.33
Table Number	4	122	213	286	39	144	245	26	143	236	48	162	256	77
Years	5 yrs.	3 yrs.	3 yrs.	3 yrs.	1919	1918	1919	3 yrs.	3 yrs.	3 yrs.	3 yrs.	3 yrs.	3 yrs.	1919
Number of Store-years	462	462	462	462	282	288	282	447	447	447	470	458	458	303

ing size. The data refer to the year 1919 alone and include the records of 282 stores. Generally speaking, the larger the store, the faster is the rate at which stock is turned. Accordingly, when the amounts for stores of a given size are divided by the stock turnover rates, the general effect is to modify or to reduce the high selling expenses associated with large stores.

C.—Amounts of Selling Expenses per \$100 Total Net Sales for the Amount Sold per \$1 of Inventory, for Stores Classified by Size.

Section III of Table C shows for the combined years the amounts of selling expense, of wages and salaries, and of advertising per \$100 of sales for the amount sold for each \$1 of inventory. The details are supplied for 149 stores, classified by size. As the stores increase in size, each element, as well as the total selling expense, decreases. This condition

holds for each of the years also. The larger the store, generally speaking, the smaller the inventory per \$100 of sales. Accordingly, when the different expense items are reduced to a basis of sales for each dollar of inventory, the amounts decrease.

D.—Amounts of Selling Expenses per \$100 of Total Net Sales per \$1,000 Sold per Full-Time Sales-Person, for Stores Classified by Size.

Section IV of Table C shows for the combined years 1914, 1918, and 1919, the amounts of selling expense and of its components per \$100 of sales for each \$1,000 sold per full-time sales-person. The records of 146 stores classified by size are included for this period. As the stores increase in size, each expense and the total decrease. This condition holds also for each of the years. Moreover, from year to year, from 1914 to 1918 to 1919, each expense element when measured in this unit decreased.

E.—Amounts of Selling Expenses per \$100 Total Net Sales for the Amount Sold per Square Foot of Floor Space, for Stores Classified by Size.

In Table C, Section V, the amounts of total selling expense and wages and salaries are shown for 1919, when expressed per \$100 total net sales for the amount sold per square foot of floor space. The records of 303 stores, classified by size, are used to determine these averages. As the stores

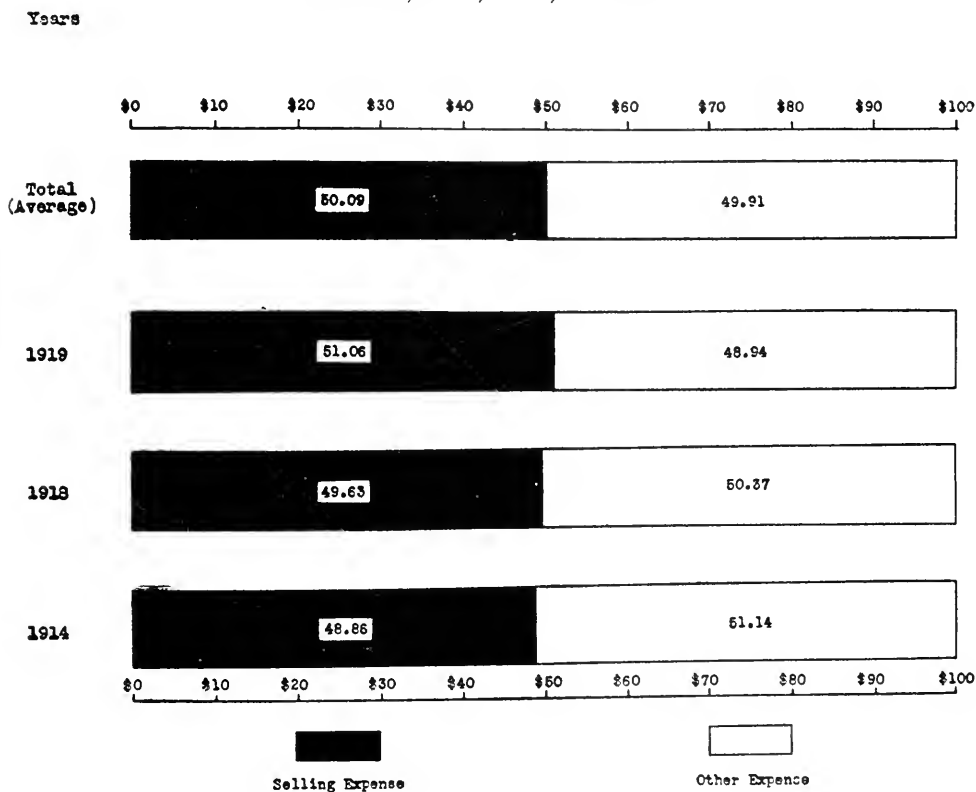
increase in size, the amounts show no regular tendency to increase or to decrease.

F.—Amounts of Selling Expense per \$100 of Total Expense for Stores Classified by Years, by Size, and by Location.

Chart I shows graphically for the combined and the individual years, 1914, 1918, and 1919, the relations which selling expense bears to total operating expense. For the years

CHART I

GRAPHIC REPRESENTATION OF THE AMOUNTS WHICH SELLING AND OTHER EXPENSE FOR 154 STORES CONSTITUTE OF EACH \$100 OF TOTAL OPERATING EXPENSE, 1919, 1918, AND 1914



combined, out of every \$100 of total operating expense, selling expense constitutes \$50.09. In 1914 the corresponding amount was \$48.86; in 1918, \$49.63; and in 1919, \$51.06. That is, from year to year, selling expense in relation to total operating expense increased.

Chart II shows graphically the amounts of selling expense per \$100

of total expense for stores classified by size. The average amount for the stores with sales under \$40,000 is \$41.13; for those with sales of \$40,000 to \$80,000, it is \$46.10; for those with sales of \$80,000 to \$180,000, \$51.49; and for those with sales of \$180,000 and over, \$52.67. That is, the amounts increase as the stores increase in size.

CHART II

GRAPHIC REPRESENTATION OF THE AMOUNTS WHICH SELLING AND OTHER EXPENSE CONSTITUTE OF EACH \$100 OF TOTAL OPERATING EXPENSE, FOR STORES OF DIFFERENT SIZE, 1919, 1918, AND 1914, COMBINED

Classified
Total
Net Sales
(in 000's)

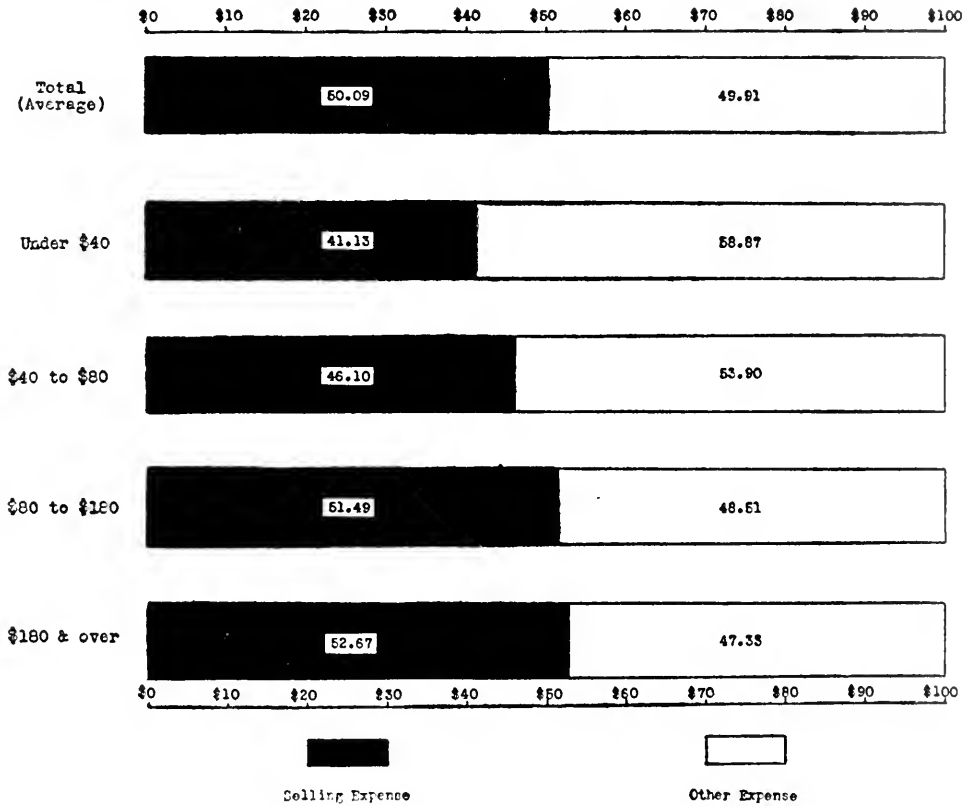


CHART III

GRAPHIC REPRESENTATION OF THE AMOUNTS WHICH SELLING AND OTHER EXPENSE
CONSTITUTE OF EACH \$100 OF TOTAL OPERATING EXPENSE, FOR STORES OF
DIFFERENT SIZE AND LOCATION, 1919, 1918, AND 1914, COMBINED

Classified
Total
Net Sales
(in 000's)

Size
of
City
(in 000's)

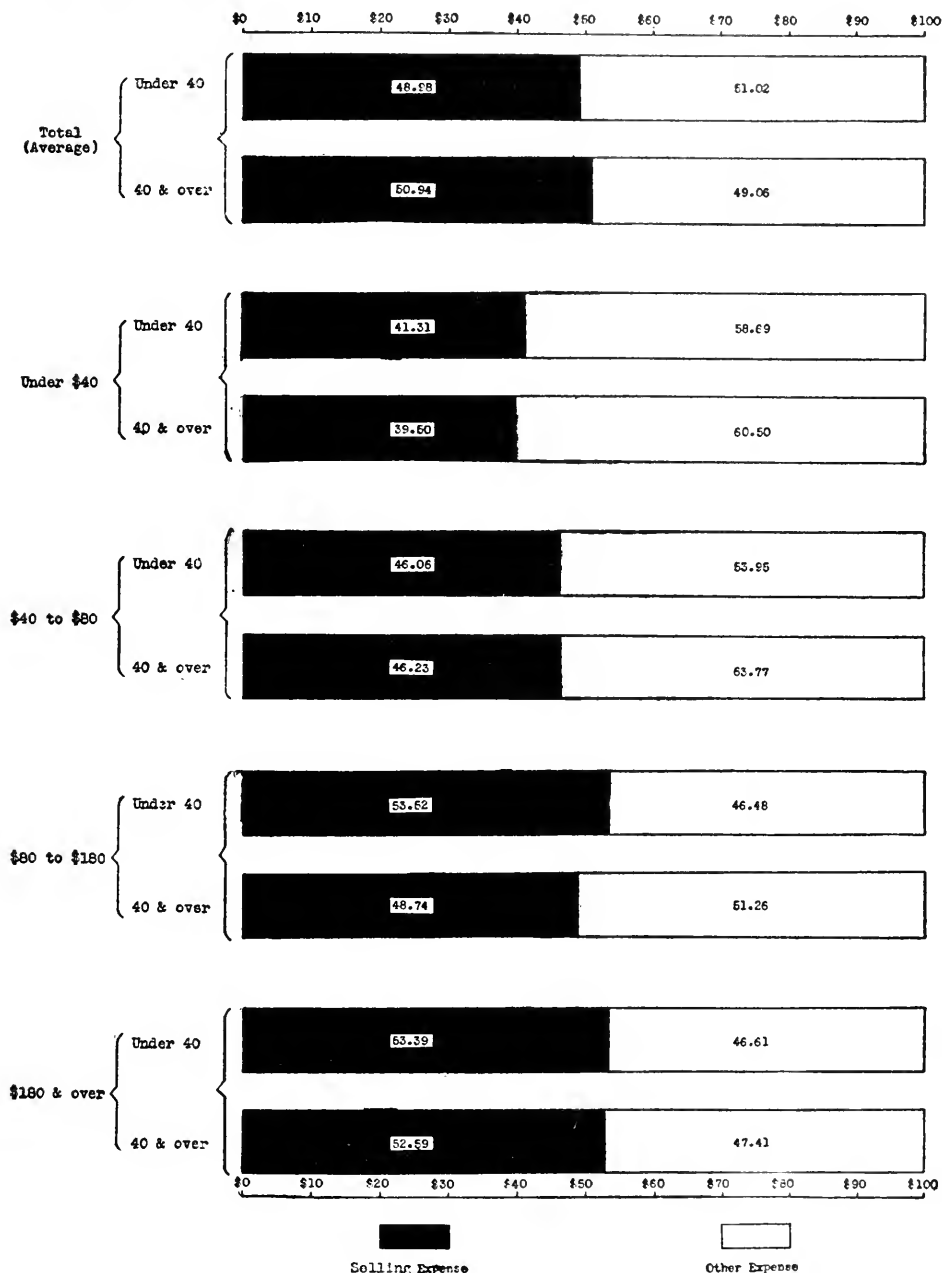


Chart III shows graphically, for the three years 1914, 1918, and 1919, combined, the amounts of selling expense per \$100 of total operating expense for 154 stores, classified by size and further by the size of the city in which located. For stores within a given size-group, the amounts of selling expense per \$100 of total operating expense, in every case but one, are larger for those in small, than for those in large cities. For all the stores, irrespective of size, the average amount is larger for the stores in the large than for those in the small cities. This seeming contradiction is due to the fact that selling expense in relation to total operating expense is higher in large than in small stores and that in the groups used, there is relatively a larger percentage of large stores in the large than in the small cities.

Table D, Section I, shows the amounts of selling expense per \$100 total operating expense. These amounts for the 154 stores for the

TABLE D

Classified Total Net Sales (in 000's)	Amounts of Total Selling Expense		
	I	II	III
	Per \$100 of Total Expense	Per \$100 of Total Expense per Stock Turnover	Per \$100 of Total Expense per \$1,000 of Sales per Full-time Sales-person
Average	\$50.09	\$22.24	\$3.11
Under \$40	41.13	23.27	4.00
\$40 to \$80	46.10	23.33	3.44
\$80 to \$180	51.49	27.19	3.07
\$180 & over	52.67	18.50	2.63
Table Number	5	57	59
Years	3 yrs.	1919	3 yrs.
Number of Store-years	462	269	438

three years combined increase as stores increase in size. This condition holds also for each of the years 1914, 1918, and 1919. From year to year, the amounts of selling expense per \$100 total operating expense increased from \$48.86 to \$51.06, as shown in Chart I. The average amount for the three years is \$50.09.

G.—Amounts of Selling Expense per \$100 Total Expense per Stock Turnover, for Stores Classified by Size.

Section II of Table D shows for 269 stores for 1919, classified by size, the average amounts of selling expense per \$100 total operating expense per stock turnover. As the stores increase in size, these amounts increase for stores with sales less than \$180,000. For the group of stores with sales of \$180,000 and over, the average is considerably smaller than for any of the other groups. This is due primarily to the greater rapidity with which these stores in this year turned their stock.

H.—Amounts of Selling Expense per \$100 Total Expense per \$1,000 Sold for Each Full-Time Sales-Person, for Stores Classified by Size.

Section III of Table D shows the amounts of selling expense per \$100 total expense, expressed in terms of \$1,000 worth of goods sold for a full-time sales-person. The records of 146 stores for the combined years, classified by size, are available for study

from this point of view. As the stores increase in size, the expenditures expressed in this unit decrease from a maximum of \$4.00 to a minimum of \$2.63. Similar decreases hold for each of the three years.

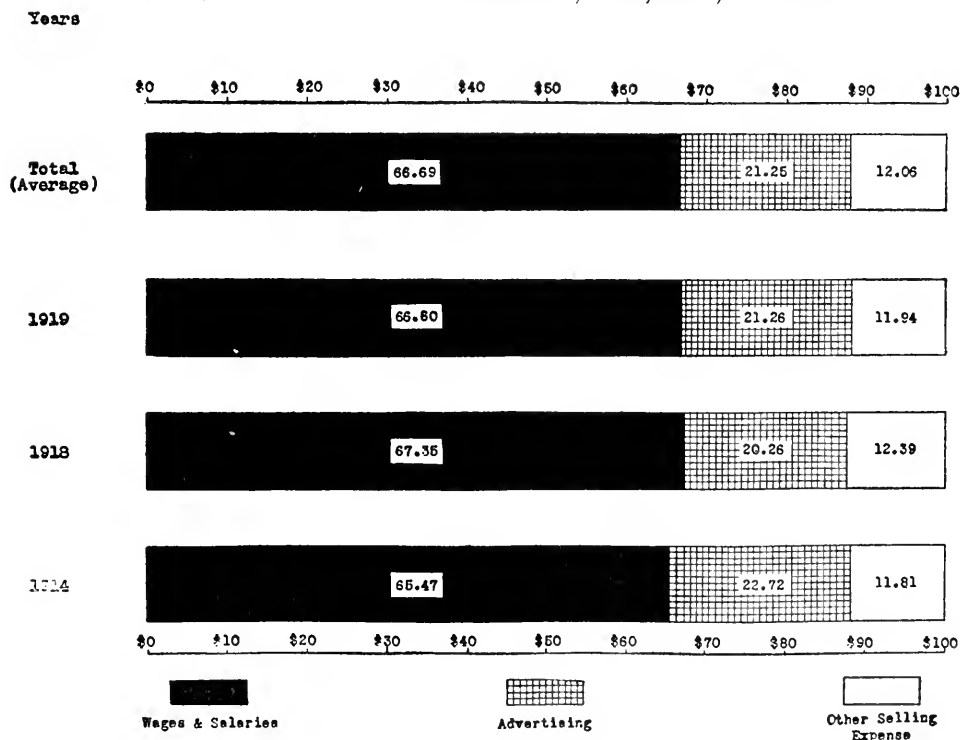
I.—Amounts of Wages and Salaries, of Advertising, and of Other Selling Expense per \$100 of Total Selling Expense, for Stores Classified by Years, by Size, and by Location.

Chart IV shows graphically for the combined and the individual years

1914, 1918, and 1919, the relations which wages and salaries, advertising, and other selling expense bear to total selling expense. For the combined years, essentially two-thirds of selling expense is attributable to wages and salaries paid to salesmen. Moreover, this proportion remains essentially constant for each of the different years. Approximately one-fifth of all the selling expenses goes for advertising. Between 1914 and 1918, the proportion for this purpose decreased and between 1918 and 1919, increased. For the combined

CHART IV

GRAPHIC REPRESENTATION OF THE AMOUNTS WHICH WAGES AND SALARIES, ADVERTISING, AND OTHER SELLING EXPENSE FOR 154 STORES CONSTITUTE OF EACH \$100 OF TOTAL SELLING EXPENSE, 1919, 1918, AND 1914



years, other selling expenses roughly constitute one-eighth of the total.

Chart V shows graphically for 154 stores classified by size, for the combined years 1914, 1918, and 1919, the relative proportion of total selling expense attributable to wages and salaries, to advertising, and to other selling expense. As the stores in-

crease in size, the proportions for wages and salaries decrease. The proportions expended for advertising and for other selling purposes increase.

Chart VI shows graphically the amounts of wages and salaries, advertising, and other selling expense per \$100 of total selling expense for the

CHART V

GRAPHIC REPRESENTATION OF THE AMOUNTS WHICH WAGES AND SALARIES, ADVERTISING, AND OTHER SELLING EXPENSE CONSTITUTE OF EACH \$100 OF TOTAL SELLING EXPENSE, FOR STORES OF DIFFERENT SIZE, 1919, 1918, AND 1914, COMBINED

Classified
Total
Net Sales
(in 000's)

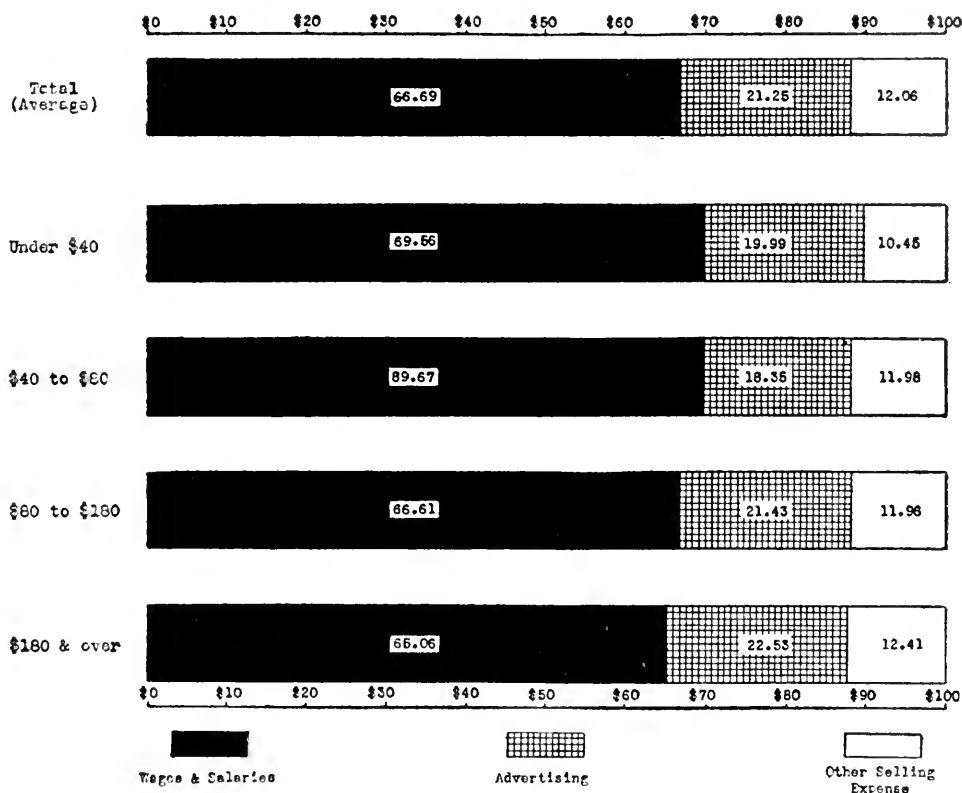


CHART VI

GRAPHIC REPRESENTATION OF THE AMOUNTS WHICH WAGES AND SALARIES, ADVERTISING, AND OTHER SELLING EXPENSE CONSTITUTE OF EACH \$100 OF TOTAL SELLING EXPENSE, FOR STORES OF DIFFERENT SIZE AND LOCATION, 1919, 1918, AND 1914, COMBINED

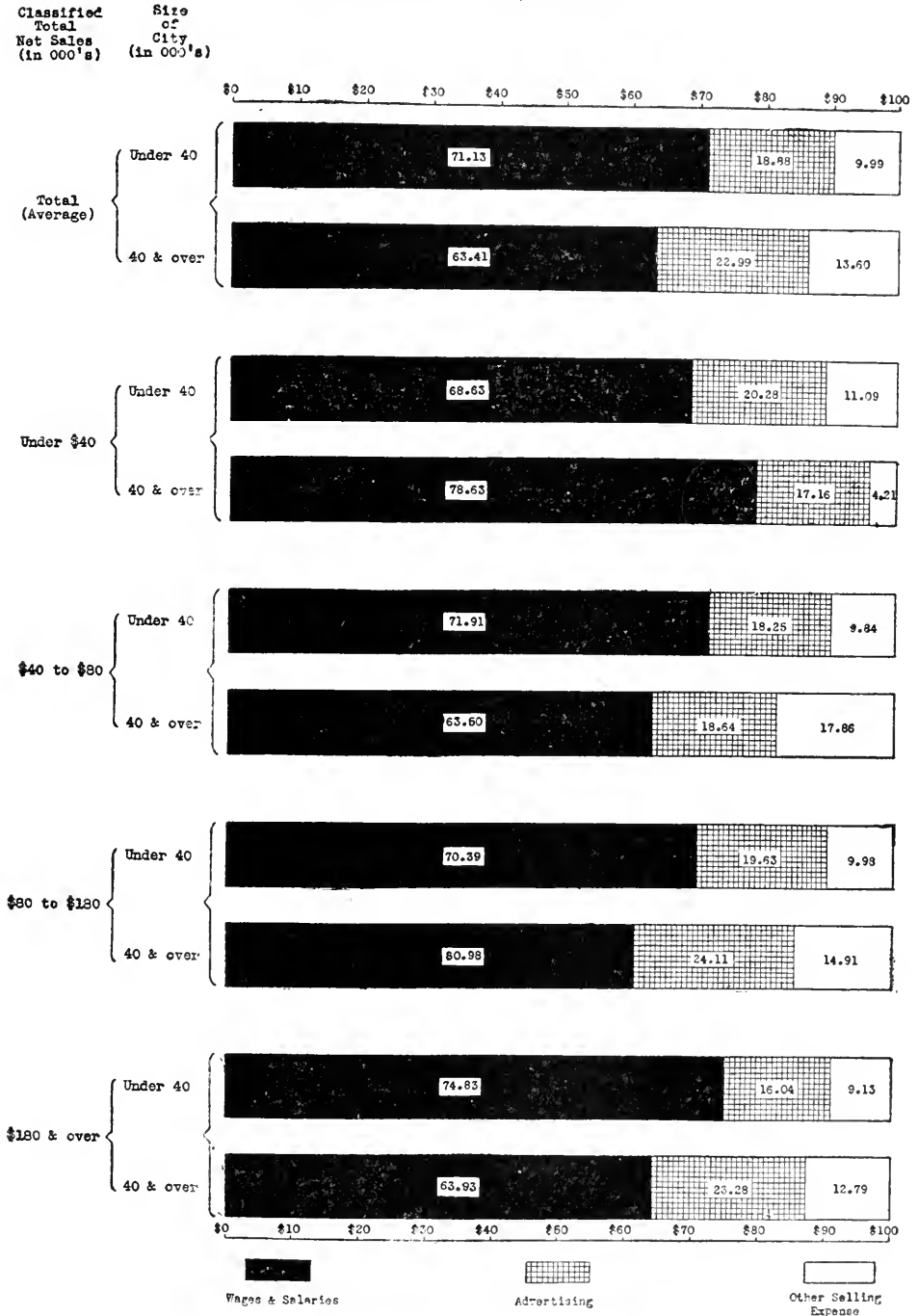


TABLE E

Classified Total Net Sales (in 000's)	Amounts of Classified Selling Expense						
	I			II		III	
	Per \$100 of Selling Expense			Per \$100 of Selling Expense per Stock Turnover		Per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person	
	Wages & Salaries	Advertising	Other	Wages & Salaries	Advertising	Wages & Salaries	Advertising
Average	\$66.69	\$21.25	\$12.06	\$29.80	\$10.00	\$4.14	\$1.31
Under \$40	69.56	19.99	10.45	47.53	12.77	6.72	1.90
\$40 to \$80	69.67	18.35	11.98	39.96	10.16	5.24	1.36
\$80 to \$120	66.61	21.43	11.98	35.24	10.54	4.06	1.28
\$120 & over	65.06	22.53	12.41	23.36	9.03	3.21	1.11
Table Number	123	216	286	166	259	168	261
Years	3 yrs.	3 yrs.	3 yrs.	1919	1919	3 yrs.	3 yrs.
Number of Store-years	462	462	462	269	269	438	438

three years, 1914, 1918, and 1919, combined, for 154 stores classified by size and further by the size of the city in which they are located. The proportions of total selling expense attributable to wages and salaries for all groups of stores, except one, when classified by size, are less in stores in the small than in those in large cities. The proportions of total selling expense which are attributable to advertising are higher for the stores in the large cities for each size-group except one. The same condition characterizes the miscellaneous selling expense. For all of the stores in the small cities, roughly 71 per cent. of the selling expense is paid out in the form of wages and salaries, 19 per cent. in the form of advertising, and 10 per cent. as other selling expense. In stores in the large cities, the corresponding percentages are 63, 23, and 14.

In Table E, Section I, the amounts

of wages and salaries, advertising, and other selling expenses per \$100 of selling expense are shown, for the combined years, for 154 stores, classified by size. As the stores increase in size, wages and salaries decrease, while advertising and other selling expense increase. Moreover, this condition obtains for each of the years.

J.—Amounts of Wages and Salaries and of Advertising per \$100 Selling Expense per Stock Turnover, for Stores Classified by Size.

In Section II of Table E the amounts of wages and salaries and of advertising per \$100 of selling expense per stock turnover for 1919 are shown for 269 stores, classified by size. The amounts of both expenses decrease as stores increase in size. The direction of change in the amounts of wages and salaries, when expressed

in this form, agrees with that shown for wages and salaries when measured in terms of selling expense alone. The direction of change for advertising, expressed in this unit, is inverse to that shown for the amounts in terms of selling expense alone.

K—Amounts of Wages and Salaries and of Advertising per \$100 of Selling Expense per \$1,000 Sold per Full-time Sales-person, for Stores Classified by Size.

Table E, Section III, shows the amounts of wages and salaries and of

three years holds for each year treated separately.

3.—AMOUNTS OF SELLING EXPENSE AND ITS COMPONENTS, WAGES AND SALARIES AND ADVERTISING, IN RELATION TO THE AMOUNTS OF STOCK CARRIED.

The method of classifying the stores, the expenses of which are summarized in this section, is according to the amounts of inventory which they had per \$100 of total net sales. In view of the fact that each of the elements of expense is a func-

TABLE F

Amount of Inventory per \$100 of Total Net Sales	Amounts of Classified Selling Expense								
	I			II			III		
	Per \$100 of Total Net Sales			Per \$100 of Total Net Sales per Stock Turnover			Per \$100 of Total Net Sales per Amount Sold per \$1 of Inventory		
	Total Selling Expense	Wages & Salaries	Advertising	Total Selling Expense	Wages & Salaries	Advertising	Total Selling Expense	Wages & Salaries	Advertising
Average	\$9.37	\$5.59	\$1.69	\$4.14	\$2.98	\$0.76	\$4.26	\$3.00	\$0.77
Under \$20	7.37	5.10	1.22	1.59	0.85	0.55	1.29	0.59	0.21
\$20 to \$40	9.21	6.20	1.77	3.24	2.24	0.67	2.76	1.65	0.65
\$40 to \$60	9.61	6.94	1.67	5.23	5.89	0.85	4.81	3.47	0.84
\$60 & over	9.57	6.97	1.76				6.69	4.98	1.23
Table Number	22	139	232	39	144	245	26	143	236
Years	3 yrs.	3 yrs.	3 yrs.	1919	1919	1919	3 yrs.	3 yrs.	3 yrs.
Number of Store-years	165	165	165	106	106	106	165	165	165

advertising, expressed per \$100 of selling expense for each \$1,000 sold per full-time sales-person, for stores classified by size. That is, the amounts are reduced to a unit basis of selling expense and of salesmen's sales. Expressed in this form, both amounts decrease as stores increase in size. The data refer to the three years 1914, 1918, and 1919, combined. The direction of change shown for the

tion of the size of the stores, a single group, *viz.*, stores with sales of \$40,000 to \$80,000, is selected for purposes of summary.

A.—Amounts of Selling Expenses per \$100 Total Net Sales, for Stores Classified by Amounts of Inventory per \$100 Total Net Sales.

For a group of stores with annual sales of \$40,000 to \$80,000, as shown

in Table F, Section I, the amounts of selling expense, of wages and salaries, and of advertising, based upon three years' experience, increase as the inventories per \$100 total net sales increase. For other size-groups classified by inventories in relation to sales, the amounts of total selling expense for the combined years increase. The amounts of wages and salaries and of advertising, however, are uncertain as to direction of change. When the stores are classified, irrespective of size, but according to the amounts of inventories in relation to their sales, each element of expense, and also the total, decreases with increasing inventories. Moreover, the conditions for the three years generally hold for each of the individual years.

B.—Amounts of Selling Expenses per \$100 Total Net Sales per Stock Turnover, for Stores Classified by Amounts of Inventory per \$100 Total Net Sales.

Table F, Section II, shows for 106 stores, having sales of \$40,000 to \$80,000 in 1919, the amounts of selling expense, wages and salaries, and advertising, measured in terms of \$100 sales per stock-turnover. The stores are classified by the amounts of inventory per \$100 total net sales. As the inventories increase in size, the different expenses also increase. That is, they are relatively low in the stores with low inventories. This condition also holds for stores in other size-groups and for all stores, irrespective of size.

C.—Amounts of Selling Expenses per \$100 Total Net Sales for the Amount Sold per \$1 of Inventory, for Stores Classified by Amounts of Inventory per \$100 Total Net Sales.

Table F, Section III, shows for a group of stores for the three years combined, the amounts of selling expense, wages and salaries, and advertising for stores having sales of \$40,000 to \$80,000, classified by the amounts of their inventories per \$100 total net sales. As the size of the inventories expressed in this form increases, the amounts of each of the expenditures increase. Moreover, this condition holds for the stores in the other size-groups and for all stores, irrespective of size. It also holds in each of the different years. From year to year, each of the different elements of expense, expressed in this form, decreased.

D.—Amounts of Selling Expense per \$100 Total Expense, for Stores Classified by Amounts of Inventory per \$100 Total Net Sales.

Table G, Section I, shows the amounts of selling expense per \$100 of total expense for a group of stores with sales from \$40,000 to \$80,000, for the three years 1914, 1918, and 1919, combined, classified by the amounts of inventory per \$100 total net sales. As the size of the inventories increases, the amounts of selling expense decrease, if the group of stores having inventories less than \$20 per \$100 total net sales is omitted.

TABLE G

Amount of Inventory per \$100 of Total Net Sales	Amounts of Total Selling Expense	Amounts of Classified Selling Expense			
	I	II		III	
	Per \$100 of Total Expense	Per \$100 of Selling Expense		Per \$100 of Selling Expense per Stock Turnover	
		Wages & Salaries	Advertising	Wages & Salaries	Advertising
Average	\$46.41	\$70.27	\$18.06	\$39.96	\$10.22
Under \$20	37.62	69.21	16.56	14.50	5.64
\$20 to \$40	43.27	66.23	19.20	31.45	9.42
\$40 to \$60	46.39	72.20	17.32	} 49.70	} 10.91
\$60 & over	45.13	72.88	18.34		
Table Number	32	149	241	153	246
Years	3 yrs.	3 yrs.	3 yrs.	1919	1919
Number of Store-years	165	165	165	106	106

A similar condition holds for the stores in each of the other size-groups, as well as for stores classified by inventory, but without relation to size. Moreover, the condition established in this table holds for each of the three years 1914, 1918, and 1919.

E.—Amounts of Wages and Salaries and of Advertising per \$100 Selling Expense, for Stores Classified by Amounts of Inventory per \$100 Total Net Sales.

In Table G, Section II, the amounts of wages and salaries and advertising are shown per \$100 selling expense for a group of stores, for the three years 1914, 1918, and 1919, combined, classified by the amounts of inven-

tories per \$100 total net sales. As the amounts of inventory in relation to sales increase, wages and salaries increase, while advertising expenditures do not show a uniform tendency either to increase or to decrease. For other groups of stores, classified by size, the direction of change in the amounts of wages and salaries and of advertising is uncertain. For all the stores, irrespective of size, the amounts of wages and salaries increase, while the amounts of advertising tend neither to increase nor to decrease as the inventories in terms of sales increase. In each of the different years for both elements of expense, the nature of the change with increasing inventories is uncertain.

F.—Amounts of Wages and Salaries and of Advertising per \$100 of Selling Expense per Stock Turn-over, for Stores Classified by Amounts of Inventory per \$100 Total Net Sales.

In Table G, Section III, the amounts of wages and salaries and of advertising per \$100 selling expense are shown for 106 stores in 1919, clas-

4.—AMOUNTS OF SELLING EXPENSE AND ITS COMPONENTS, WAGES AND SALARIES, ADVERTISING, AND OTHER SELLING EXPENSE, IN RELATION TO THE AMOUNTS SOLD PER FULL-TIME SALES-PERSON.

Throughout this part of the Summary, a single group of stores having sales between \$40,000 and \$80,000, classified by the amounts sold per

TABLE II

Amount of Sales per Full-time Sales-person (in 000's)	Amounts of Classified Selling Expense								
	I			II			III		
	Per \$100 of Total Net Sales			Per \$100 of Total Net Sales per Stock Turnover			Per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person		
	Total Selling Expense	Wages & Salaries	Advertising	Total Selling Expense	Wages & Salaries	Advertising	Total Selling Expense	Wages & Salaries	Advertising
Average	\$9.20	\$6.45	\$1.67	\$4.27	\$3.00	\$0.76	\$0.69	\$0.46	\$0.12
Under \$12	10.82	7.65	1.92	6.03	4.43	0.95	1.08	0.79	0.19
\$12 to \$16	9.45	6.51	1.71	5.07	3.70	0.98	0.68	0.47	0.12
\$16 to \$24	7.62	5.11	1.42	3.66	2.61	0.62	0.42	0.28	0.08
\$24 to \$32	7.15	5.25	1.51	3.42	2.61	0.60	0.28	0.19	0.06
\$32 & over	4.03	2.44	0.81	2.66	1.58	0.62	0.09	0.06	0.02
Table Number	49	162	255	46	158	252	49	162	255
Year	3 yrs.	3 yrs.	3 yrs.	1919	1919	1919	3 yrs.	3 yrs.	3 yrs.
Number of Store-years	163	163	163	103	103	103	163	163	163

sified by the amounts of inventories per \$100 total net sales. As the inventories in relation to sales increase, both wages and salaries and advertising, as proportionate parts of selling expense, when reduced to a stock turnover basis, increase. This condition holds for the stores in each of the other size-groups, as well as for all stores, when classified according to inventory in relation to sales, but irrespective of size. Data are available in this form for 1919 only.

full-time sales-person, is used. The different parts of selling expense and the total are expressed in simple and composite units, the purpose being to reduce the varying conditions in these stores to a unit basis.

A.—Amounts of Selling Expenses per \$100 of Total Net Sales, for Stores Classified by Amounts Sold per Full-time Sales-person.

For a group of stores for the combined years 1914, 1918, and 1919,

with annual sales of \$40,000 to \$80,000, as shown in Table H, Section I, the amounts of selling expense, of wages and salaries, and of advertising expenditures per \$100 total net sales decrease as the amounts sold per full-time sales-person increase. Moreover, this condition holds for the stores in each of the different size-groups. When the stores are classified by location the amounts of total selling expense and of wages and salaries decrease as the amounts sold per full-time sales-person increase. The direction of change for advertising is uncertain.

B.—Amounts of Selling Expenses per \$100 Total Net Sales per Stock Turnover, for Stores Classified by Amounts Sold Per Full-time Sales-person.

Table H, Section II, shows for a group of stores for 1919, having sales of \$40,000 to \$80,000, the amounts of selling expense, of wages and salaries, and of advertising per \$100 of total net sales per stock turnover, for stores classified by the amounts sold per full-time sales-person. As the amounts sold per full-time sales-person increase, the total selling expense and its components, wages and salaries and advertising, expressed in this unit, decrease. Moreover, this condition holds for the stores in each of the other size-groups, treated in the text, as well as for the stores classified without respect to size, but according to the sales per sales-person. When the stores are classified by location, the amounts of selling expense

and of wages and salaries decrease. The amounts of advertising are uncertain as to direction of change. How nearly these conditions hold when the stores are classified more elaborately will be seen by consulting the parts of the text having to do with these topics.

C.—Amounts of Selling Expenses per \$100 Total Net Sales for Each \$1,000 Sold per Full-time Sales-person, for Stores Classified by Amounts Sold per Full-time Sales-person.

In Table H, Section III, the amounts of total selling expense, of wages and salaries, and of advertising per \$100 of total net sales for each \$1,000 sold per full-time sales-person are shown for a group of stores with sales of \$40,000 to \$80,000, for the three years combined, when the stores are classified by the amounts sold per full-time sales-person. When the amounts are expressed in this unit, the total, as well as the component parts, wages and salaries and advertising, decreases as the sales per full-time sales-person increase. This condition also holds for the stores in each of the different size-groups and for the total stores, when classified in this form, but irrespective of size. Moreover, in each of the different years, each element of selling expense, measured in this unit, decreases as the sales per full-time sales-person increase. When the stores are classified by location into two city-groups, the amounts of each element of expense and the total also decrease as the sales

per full-time sales-person increase. The significance of such decreases with increased activities of salesmen is brought out more fully in the text. It is, however, of interest at this point to suggest the savings in the different elements of expense which accompany the increased activities of salesmen. To increase the amounts of goods sold per salesman is one of the many ways in which operating expenses in relation to sales may be reduced.

TABLE I

Amount of Sales per Full-time Sales-person (in 000's)	Amounts of Total Selling Expense		
	I	II	III
	Per \$100 of Total Expense	Per \$100 of Total Expense per Stock Turnover	Per \$100 of Total Expense per \$1,000 of Sales per Full-time Sales-person
Average	\$45.07	\$23.33	\$5.44
Under \$12	50.34	28.05	5.04
\$12 to \$16	45.37	27.25	5.29
\$16 to \$24	41.63	21.70	2.27
\$24 to \$32	39.55	19.53	1.45
\$32 & over	35.72	13.62	0.84
Table Number	59	57	59
Years	3 yrs.	1919	3 yrs.
Number of Store-years	163	103	163

D.—Amounts of Selling Expense per \$100 Total Expense, for Stores Classified by Amounts Sold per Full-time Sales-person.

Table I, Section I, shows the amounts of selling expense per \$100 total expense for a group of stores for the three years 1914, 1918, and 1919, combined, which had sales between \$40,000 and \$80,000 per year. The average amounts are shown for these stores when classified by the amounts

sold per full-time sales-person. As such amounts increase, selling expenses, as proportionate parts of total expense, decrease. The same condition holds for the stores in the other size-groups, treated in the text, and also for all the stores when they are classified in this form, but without respect to size. In each of the different years, 1914, 1918, and 1919, moreover, the amounts of selling expense as proportionate parts of total expense decrease with increasing sales per full-time sales-person.

E.—Amounts of Selling Expense per \$100 Total Expense per Stock Turnover, for Stores Classified by Amounts Sold per Full-time Sales-person.

Section II of Table I shows the amounts of selling expense per \$100 of total operating expense reduced to a per turn basis. The stores included are those having sales of \$40,000 to \$80,000, and the basis of classification is the amount sold per full-time sales-person. As the amounts increase, selling expense expressed in this manner decreases. This condition holds for the stores in the other size-groups and also for the stores as a whole, classified in this form, but irrespective of size.

F.—Amounts of Selling Expense per \$100 Total Expense per \$1,000 Sold for Each Full-Time Sales-person, for Stores Classified by Amounts Sold per Full-time Sales-person.

Table I, Section III, shows the amounts of selling expense for \$100

total expense for each \$1,000 sold per full-time sales-person. The details apply to a group of stores having sales of \$40,000 to \$80,000, when classified according to the amounts sold per full-time sales-person. As these amounts increase, selling expenses expressed in this form decrease. The table refers to a single size-group for the three years combined. In each of the other size-groups and for all the stores in the combined and in the individual years, however, the same condition holds. Moreover, from years to year, the amounts decreased. Certain modifications of these conclusions must be made for stores, when they are classified not only by size, but also by location. These are pointed out in the body of the text.

G.—Amounts of Wages and Salaries and of Advertising per \$100 Selling Expense, for Stores Classified by Amounts Sold per Full-time Sales-person.

Table J, Section I, shows for the combined years 1914, 1918, and 1919, the amounts of wages and salaries and of advertising per \$100 of selling expense for a group of stores with sales of \$40,000 to \$80,000. The basis of classifying the stores is the amount sold per full-time sales-person. As the sales per sales-person increase, the amounts of wages and salaries decrease and the amounts of advertising increase. For the stores in the other size-groups, the same condition obtains for wages and salaries,

TABLE J

Amount of Sales per Full-time Sales-person (in 000's)	Amounts of Classified Selling Expense					
	I		II		III	
	Per \$100 of Selling Expense		Per \$100 of Selling Expense per Stock Turnover		Per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person	
	Wages & Salaries	Advertising	Wages & Salaries	Advertising	Wages & Salaries	Advertising
Average	\$70.15	\$18.19	\$39.96	\$10.16	\$5.24	\$1.36
Under \$12	72.53	17.76	49.01	10.51	7.25	1.78
\$12 to \$16	68.95	18.07	42.96	11.43	4.99	1.31
\$16 to \$24	67.07	18.65	39.59	9.44	3.66	1.02
\$24 to \$32	73.48	21.08	36.40	8.45	2.69	0.77
\$32 & over	60.63	20.06	31.26	12.32	1.43	0.47
Table Number	168	261	166	259	168	261
Years	3 yrs.	3 yrs.	1919	1919	3 yrs.	3 yrs.
Number of Store-years	163	163	103	103	163	163

while the direction of change is uncertain for the amounts of advertising. When all the stores are classified in the form shown in the table, the amounts of wages and salaries decrease, and the amounts of advertising increase. These generalizations are based upon the averages for three years. In a general way, however, the condition shown in the table for the combined years also holds in the different years. When the stores are classified by location, it is impossible to generalize as to the direction of change in the amounts. The reader is advised to consult the text treatment of this matter both for the actual amounts and for the nature of the change with increasing amounts sold per full-time sales-person.

H.—Amounts of Wages and Salaries and Advertising per \$100 Selling Expense per Stock Turnover, for Stores Classified by Amounts Sold per Full-time Sales-person.

Table J, Section II, shows for the year 1919 the amounts of wages and salaries and of advertising per \$100 selling expense per stock turnover for a group of stores which had sales from \$40,000 to \$80,000. The averages apply to stores classified according to the sales per full-time sales-person. As such sales increase, wages and salaries expressed in this unit decrease, while the direction of change for advertising expenditures is uncertain. For each of the other size-groups, as well as for all of the stores, the same conditions obtain. It is well, in this connection, to consult the detailed

text treatment for the amounts as well as the nature of the change under different conditions of store operation.

I.—Amounts of Wages and Salaries and Advertising per \$100 Selling Expense for Each \$1,000 Sold per Full-time Sales-person, for Stores Classified by the Amounts Sold per Full-time Sales-person.

In Table J, Section III, the amounts of wages and salaries and advertising are shown per \$100 of selling expense for \$1,000 sold per full-time sales-person. By expressing the amounts in this form, the different conditions of store operation are reduced to a unit basis. For the groups of stores under consideration, as the amounts sold per full-time sales-person increase, the expenditures for wages and salaries and for advertising decrease. Moreover, this condition holds for the stores in the other size-groups as well as for the stores as a whole, when classified by the amounts sold per person. The condition shown in the table for the combined years also holds in each of the individual years. From year to year, the amounts of both expenditures decreased. For the direction of change in the amounts for the stores when classified by location, the reader is referred to the text treatment.

5.—AMOUNTS OF SELLING EXPENSE AND ITS COMPONENTS, WAGES AND SALARIES AND ADVERTISING, IN RELATION TO EXPENDITURES FOR RENT.

The method of classifying the stores, the expenditures of which are here summarized is according to the

TABLE K

Amount of Rent per 100 Sq. Ft. of Floor Space	Amounts of Classified Selling Expense				Amounts of Wages & Salaries	
	I		II		III	IV
	Per \$100 of Total Net Sales		Per \$100 of Total Net Sales per Sales per Sq. Ft.		Per \$100 of Selling Expense	Per \$100 of Selling Expense per Sales per Sq. Ft.
	Total Selling Expense	Wages & Salaries	Total Selling Expense	Wages & Salaries		
Average	\$7.13	\$5.09	\$0.38	\$0.27	\$71.31	\$3.82
Under \$20	6.63	5.01	0.66	0.50	75.57	7.50
\$20 to \$40	6.33	4.41	0.34	0.23	69.61	3.69
\$40 to \$60	7.55	5.42	0.35	0.25	71.73	3.30
\$60 & over	8.44	6.00	0.28	0.20	71.10	2.33
Table Number	77	184	77	184	185	185
Year	1919	1919	1919	1919	1919	1919
Number of Store-years	113	113	113	113	113	113

expenditures for rent per 100 square feet of floor space in 1919. In view of the fact that the different elements of expense are controlled in part by store location and by the amount of floor space utilized, it is thought worthwhile to summarize briefly the part of the discussion which relates to this topic. While it is impossible adequately to deal with this subject in a summary, certain general conclusions of the treatment may be summarized for a single group of stores. For this purpose, 113 stores having sales of \$40,000 to \$80,000 in 1919 are used.

A.—Amounts of Selling Expenses per \$100 of Total Net Sales, for Stores Classified by Amounts of Rent Paid per 100 Square Feet of Floor Space.

In Table K, Section I, the amounts of total selling expense and of wages and salaries per \$100 total net sales are shown for 113 stores having sales of \$40,000 to \$80,000 when the same are classified by the rental expenditures per 100 square feet of floor space. As the rents, expressed in this form, increase, total selling expense and wages and salaries in relation to sales increase. Moreover, this condition, so far as the total selling expense is concerned, also holds for the stores in the other size-groups. The direction of change for wages and salaries for the other groups is uncertain. For all the stores, irrespective of size, the amounts of wages and salaries tend to increase, while those of total selling expense are uncertain as to direction of change. When the stores are clas-

sified by location, and by rental payments per 100 square feet of floor space, the amounts of total selling expense and of wages and salaries increase as rental payments per 100 square feet of floor space increase.

B.—Amounts of Selling Expenses per \$100 Total Net Sales, for the Amount Sold per Square Foot of Floor Space for Stores Classified by Amounts of Rent Paid per 100 Square Feet of Floor Space.

Table K, Section II, shows for 113 stores in 1919 the amounts of selling expense and of wages and salaries per \$100 total net sales for the amount sold per square foot of floor space. By expressing the expenditures in this form, the different elements of store operation named in the table are reduced to a unit basis. The stores are classified according to the rentals per square foot of floor space. As the amounts expended for this purpose increase, both selling expense and wages and salaries decrease. Such a condition holds also for the stores in the other size-groups and for all the stores, irrespective of size, when classified in this form.

C.—Amounts of Wages and Salaries per \$100 Selling Expense, for Stores Classified by Amounts of Rent Paid per 100 Square Feet of Floor Space.

In Table K, Section III, the amounts of wages and salaries per \$100 selling expense are shown for a group of stores, having sales of \$40,000 to \$80,000 in 1919, when they are

classified by the rental payments per 100 square feet of floor space. As the rental payments increase, wages and salaries decrease. Moreover, this condition obtains for the stores in each of the other size-groups and for all stores classified in this form but without respect to size.

D.—Amounts of Wages and Salaries per \$100 Selling Expense for the Amount Sold per Square Foot of Floor Space, for Stores Classified by Amounts of Rent Paid per 100 Square Feet of Floor Space.

In Section IV, of Table K, the amounts of wages and salaries per \$100 selling expense for the amounts sold per square foot of floor space are shown for 1919 for 113 stores classified by rental payments per 100 square feet of floor space. For purposes of summary, the stores having sales of \$40,000 to \$80,000 are used. One result of increasing rental payments is a saving in the amount of floor space utilized. Accordingly, when wages and salaries are expressed in relation to selling expense and the amount sold per square foot of floor space, they decrease as the rentals paid per 100 square feet of floor space increase. For other groups of stores, a similar condition obtains.

6.—AMOUNTS OF SELLING EXPENSE AND ITS COMPONENTS, WAGES AND SALARIES AND ADVERTISING, IN RELATION TO THE AMOUNTS OF FIXTURE INVESTMENTS PER \$100 OF TOTAL NET SALES.

One section of the text is devoted to an analysis of the amounts of selling

TABLE L

Amount of Fixture Account per \$100 of Total Net Sales	Amounts of Classified Selling Expense			Amounts of Total Selling Expense	Amounts of Classified Selling Expense	
	I			II	III	
	Per \$100 of Total Net Sales			Per \$100 of Total Expense	Per \$100 of Selling Expense	
	Total Selling Expense	Wages & Salaries	Advertising		Wages & Salaries	Advertising
Average	\$9.30	\$6.57	\$1.68	\$46.52	\$70.68	\$18.04
Under \$2	7.11	5.27	0.95	45.03	74.16	13.30
\$2 to \$4	8.36	5.71	1.64	43.11	68.31	19.66
\$4 to \$6	9.56	6.39	1.89	47.30	66.81	19.79
\$6 & over	11.65	8.88	1.95	51.51	74.93	16.42
Table Number	89	193	273	97	198	281
Years	3 yrs.	3 yrs.	3 yrs.	3 yrs.	3 yrs.	3 yrs.
Number of Store-years	153	153	153	153	153	153

expense in stores with different fixture investments in relation to sales. It is the purpose of the summary and of Table L to indicate in brief the amounts of the different elements of expenditures for stores classified by the relation of their fixture account to sales, and to indicate the tendency, if any, for these amounts to increase or to decrease under different conditions of store operation.

A.—Amounts of Selling Expenses per \$100 of Total Net Sales, for Stores Classified by Amounts Invested in Fixtures per \$100 of Total Net Sales.

Table L, Section I, shows for the three years combined the amounts of selling expense, wages and salaries, and advertising per \$100 total net sales for a group of stores with sales

of \$40,000 to \$80,000, classified by the amount invested in fixtures per \$100 of total net sales. As the amounts invested in this form increase, total selling expense, wages and salaries, and advertising expenditures likewise increase. For the stores in each of the other size-groups and for all the stores, classified irrespective of size, a similar condition obtains. Moreover, increases in each of the different elements of expense are encountered in each of the years for stores classified in this form.

B.—Amounts of Selling Expense per \$100 Total Expense, for Stores Classified by Amounts Invested in Fixtures per \$100 Total Net Sales.

Table L, Section II, shows the amounts of selling expense per \$100

total operating expense for a group of stores during the three years 1914, 1918, and 1919, combined, which had sales of \$40,000 to \$80,000, when the stores are classified by the amounts invested in fixtures per \$100 total net sales. As these amounts increase, selling expense as a proportionate part of total operating expense increases. For the stores in the other size-groups, and for the stores when classified in this form but irrespective of size, however, the direction of change in the amounts is uncertain. Moreover, in each of the individual years there seems to be no unmistakable tendency for the amounts to increase or to decrease.

C.—Amounts of Wages and Salaries and of Advertising per \$100 Selling Expense, for Stores Classified by Amounts Invested in Fixtures per \$100 Total Net Sales.

In Section III of Table L, the amounts of wages and salaries and of advertising per \$100 of selling expense for a group of stores for the three years 1914, 1918, and 1919, combined, are shown when the stores are classified by the amount of fixture investment per \$100 total net sales. As the amounts of fixture investment per \$100 total net sales increase, there seems to be no certain tendency for wages and salaries and advertising either to increase or to decrease. It is to be noted that this condition is true also for the stores in each of the other size-groups.

7.—AMOUNTS OF SELLING EXPENSE AND ITS COMPONENTS, WAGES AND SALARIES AND ADVERTISING, IN RELATION TO INVESTMENTS IN FIXTURES PER 100 SQUARE FEET OF FLOOR SPACE.

Two methods of classifying the stores in relation to investments in fixtures are used. In Table L the amounts are stated in relation to sales while in Table M they are given in terms of floor space.

A.—Amounts of Selling Expenses per \$100 Total Net Sales, for Stores Classified by Amounts Invested in Fixtures per 100 Square Feet of Floor Space.

Table M, Section I, shows for 1919 the amounts of total selling expense and wages and salaries per \$100 total net sales for 113 stores, classified by the amounts invested in fixtures per 100 square feet of floor space. As the amounts so invested increase, both selling expense and wages and salaries per \$100 total net sales increase. This condition, moreover, holds for the stores in other size-groups and for all the stores, irrespective of size, when they are classified by the fixture investment in relation to floor space.

B.—Amounts of Selling Expenses per \$100 Total Net Sales for the Amount Sold per Square Foot of Floor Space, for Stores Classified by Amounts Invested in Fixtures per 100 Square Feet of Floor Space.

Table M, Section II, shows the amounts of selling expense and of

TABLE M

Amount of Fixture Account per 100 sq. ft. of Floor Space	Amounts of Classified Selling Expense				Amounts of Wages & Salaries	
	I		II		III	IV
	Per \$100 of Total Net Sales		Per \$100 of Total Net Sales per Sales per sq. ft.		Per \$100 of Selling Expense	Per \$100 of Selling Expense per Sales per sq. ft.
	Total Selling Expense	Wages & Salaries	Total Selling Expense	Wages & Salaries		
Average	\$7.13	\$5.09	\$0.38	\$0.27	\$71.31	\$3.82
Under \$40	6.76	4.71	0.45	0.32	69.64	4.66
\$40 to \$80	6.42	4.54	0.32	0.23	70.61	3.50
\$80 to \$120	7.80	5.49	0.33	0.23	70.31	2.97
\$120 & over	8.85	6.82	0.48	0.37	77.04	4.14
Table Number	104	203	104	203	205	205
Year	1919	1919	1919	1919	1919	1919
Number of Store-years	113	113	113	113	113	113

wages and salaries per \$100 total net sales for the amount sold per square foot of floor space. The amounts refer to 113 stores with sales of \$40,000 to \$80,000 in 1919, classified by the fixture investment per 100 square feet of floor space. As the investments measured in this way increase, there seems to be a general tendency for the amounts of selling expense to increase. Such a condition holds also for the stores in the other size-groups and for all the stores, irrespective of size, when classified in this manner. The direction of change in the amounts of wages and salaries for the group of stores included in the table is uncertain. For other groups and for the total, the general tendency is for the amounts to decrease as the fixture investments increase. Certain

exceptions to this tendency, however, occur, and it is impossible to summarize them in a brief statement.

C.—Amounts of Wages and Salaries per \$100 of Selling Expense, for Stores Classified by Amounts Invested in Fixtures per 100 Square Feet of Floor Space.

Table M, Section III, shows the amounts of wages and salaries per \$100 of selling expense in 1919 for 113 stores with sales of \$40,000 to \$80,000, when the same are classified by the amount of fixture investments per 100 square feet of floor space. As the investments measured in this manner increase, wages and salaries per \$100 selling expense also increase. That is, under the conditions named, wages and salaries constitute an in-

creasingly larger proportion of the total selling expense. How nearly this condition obtains for stores in the other size-groups and for the total, irrespective of size, may be seen by consulting the text treatment and the tables concerned.

D.—Amounts of Wages and Salaries per \$100 Selling Expense for the Amount Sold per Square Foot of Floor Space, for Stores Classified by Amounts Invested in Fixtures per 100 Square Feet of Floor Space.

Table M, Section IV, shows the amounts of wages and salaries per \$100 of selling expense reduced to a unit basis for the amount sold per square foot of floor space. The stores are those having sales of \$40,000 to \$80,000. They are classified according to their fixture investments in relation to floor space. As these investments increase, wages and salaries, measured in this form, decrease, if the stores having investments of \$120 and over per 100 square feet of floor space are excepted. For the stores in the other size-groups, the amounts of wages and salaries under the conditions established in the table also tend to decrease.

8.—AMOUNTS OF SELLING EXPENSE AND ITS COMPONENTS, WAGES AND SALARIES AND ADVERTISING, IN RELATION TO EXPENDITURES FOR ADVERTISING PER \$100 TOTAL NET SALES.

In Table N the amounts of expenses, expressed in terms of sales, of total

expense, and of selling expense, are shown in simple and complex units for stores with sales of \$40,000 to \$80,000, and with different expenditures for advertising in relation to sales. The purpose of the text treatment of this topic is to determine, if possible, the effect which different amounts of advertising have upon selling expense. It is impossible briefly to summarize all the conclusions in the text or to duplicate all the different ratios. Reference should be made to the text treatment under various classifications of stores.

A.—Amounts of Selling Expenses per \$100 Total Net Sales, for Stores Classified by Amounts of Advertising Expenditure per \$100 Total Net Sales.

Table N, Section I, shows for 1919 the amounts of selling expense and of wages and salaries per \$100 of total net sales for 106 stores, classified by the amounts of advertising in relation to sales. As the amounts increase, selling expense and wages and salaries also increase. For purposes of summary, a group of stores with sales of \$40,000 to \$80,000 has been selected. To have ignored store size in this connection, in view of the fact that the amounts of advertising per \$100 total net sales increase with store size, would have made such a comparison meaningless. Similar increases hold for the stores in each of the other size-groups. When the stores are classified by location, it is difficult to generalize as to the direction of change or briefly to indicate the

TABLE N

Amount of Advertising per \$100 of Total Net Sales	Amounts of Classified Selling Expense				Amounts of Total Selling Expense		Amounts of Wages & Salaries	
	I		II		III	IV	V	VI
	Per \$100 of Total Net Sales		Per \$100 of Total Net Sales per Stock Turnover		Per \$100 of Total Expense	Per \$100 of Total Expense per Stock Turnover	Per \$100 of Selling Expense	Per \$100 of Selling Expense per Stock Turnover
	Total Selling Expense	Wages & Salaries	Total Selling Expense	Wages & Salaries				
Average	\$7.45	\$5.35	\$4.14	\$2.98	\$41.79	\$23.22	\$71.92	\$39.96
Under \$1	5.77	4.59	3.21	2.54	37.87	21.04	72.37	44.09
\$1 to \$2	7.34	5.26	4.32	3.09	40.49	23.92	71.64	42.14
\$2 to \$3	9.32	6.14	5.19	3.41	45.15	25.09	65.92	36.62
\$3 & over	13.23	8.57	7.78	5.04	54.13	31.84	64.73	30.09
Table Number	107	206	109	206	115	115	207	207
Year	1919	1919	1919	1919	1919	1919	1919	1919
Number of Store-years	106	106	106	106	106	106	106	106

actual expenditures. The reader is advised to consult the text for a more elaborate treatment of the subject and the conclusions to which it has led.

B.—Amounts of Selling Expenses per \$100 Total Net Sales per Stock Turnover, for Stores Classified by Amounts of Advertising Expenditure per \$100 Total Net Sales.

In Section II of Table N the amounts of selling expense and of wages and salaries per stock turnover are shown for 106 stores in 1919, having sales of \$40,000 to \$80,000, when the same are classified by the amounts expended for advertising per \$100 total net sales. As these amounts increase, the total selling expense and the wages and salaries also increase. Similar increases characterize the stores in the other size-groups. The

expenditures are reduced to a unit turnover basis, thus making more directly comparable the operating conditions of the different stores.

C.—Amounts of Selling Expense per \$100 Total Expense, for Stores Classified by Amounts of Advertising Expenditure per \$100 Total Net Sales.

In Section III of Table N the amounts of selling expense per \$100 total operating expense are shown for 106 stores in 1919, with sales of \$40,000 to \$80,000, classified by the amounts of advertising per \$100 total net sales. As these amounts increase, selling expense becomes a proportionately larger percentage of total operating expense. For other groups of stores, when classified by size, and for the total stores, note that the direction of change in these amounts is uncertain.

D.—Amounts of Selling Expense per \$100 Total Expense per Stock Turnover, for Stores Classified by Amounts of Advertising Expenditure per \$100 of Total Net Sales.

In Table N, Section IV, the amounts of selling expense per \$100 total operating expense, when reduced to a stock turnover basis are shown for 106 stores in 1919, with sales of \$40,000 to \$80,000, when the same are classified by the amount of advertising per \$100 total net sales. As the amounts spent for this purpose increase, the expenditures for selling also increase. For the stores in the other size-groups, the direction of change is uncertain in some respects. The nature of the differences may be seen by consulting the tables in the text proper. For the amounts for stores classified by location, the reader is also advised to consult the text.

E.—Amounts of Wages and Salaries per \$100 Selling Expense, for Stores Classified by Amounts of Advertising Expenditure per \$100 Total Net Sales.

In Section V of Table N, the amounts of wages and salaries per \$100 selling expense are shown for 106 stores having sales of \$40,000 to \$80,000 in 1919, when they are classified by the amounts expended for advertising per \$100 total net sales. As the amounts expended for this purpose increase, wages and salaries become proportionately smaller parts of selling expense. This condition,

moreover, holds for the stores in each of the different size-groups and also for the stores as a whole, irrespective of size, classified according to advertising expenditures per \$100 total net sales.

F.—Amounts of Wages and Salaries per \$100 Selling Expense per Stock Turnover, for Stores Classified by Amounts of Advertising Expenditure per \$100 Total Net Sales.

Table N, Section VI, shows the amounts of wages and salaries per \$100 selling expense reduced to a per-stock turnover basis. The averages refer to 106 stores in 1919, having sales of \$40,000 to \$80,000 and classified by the expenditures for advertising in relation to sales. As the amounts spent for this purpose increase, wages and salaries, measured in this unit, decrease. This condition holds for the stores in each of the other size-groups and for all of the stores classified in this manner but irrespective of size.

9.—AMOUNTS OF SELLING EXPENSE AND ITS COMPONENTS, WAGES AND SALARIES AND ADVERTISING, FOR STORES CLASSIFIED BY EXPENDITURES FOR ADVERTISING, BY METHODS OF PAYING SALESMEN, AND BY RELATIVE RATES OF PROFIT PER \$100 TOTAL NET SALES.

In the body of the text special attention is given to the effect which expenditures for advertising per \$100 total net sales in 1914 and 1918 had upon sales and selling expense in sub-

sequent years. The details resulting from this analysis are contained in Tables 112 to 114, inclusive. While it is impossible to summarize them briefly, it is concluded that the expenditures for advertising offer a means by which selling expenses may be reduced. Obviously, there are limitations beyond which this is not true, and it is not claimed that the analysis shows conclusively a causal connection between the two factors. It is interesting to find, however, that, generally speaking, the larger the expenditures for advertising in relation to sales, the greater is the reduction in expenses in relation to sales.

In Tables 67 to 74 and 176 to 183, inclusive, of the text, stores are classified according to the method by which salesmen are compensated. The purpose of these tables is to determine the relationship, if any, between the amounts of selling expense and the methods by which salesmen are compensated. Generally speaking, two conclusions result from this analysis: First, when all the evidence is considered, stores which pay their salesmen a bonus show higher total selling expense and wages and salaries than do those which pay no bonus. Second, stores in which salesmen are paid on a salary and

commission basis have, on the whole, lower total selling expense and wages and salaries than do those which use straight salaries alone. The reader is advised to consult the tables and the discussion relating to them for a fuller statement of the evidence to the above effect.

In the final section of the text, stores are classified according to the relative rates of profit per \$100 total net sales which they had in 1919. For the stores classified in this form, the amounts of selling expense, of total operating expense, of gross margin, and of cost of merchandise sold have been determined. Generally speaking, the conclusion which is reached is as follows: The greater the relative rate of profit, the smaller the cost of merchandise sold, the total operating expense and the selling expense, and the larger the gross margin.

In the introductory paragraph a plea is made for the reader not to content himself with a hasty perusal of the Summary. Care has been taken throughout the entire analysis faithfully to present the facts as shown by store records and the Bureau is anxious that the case, as presented in full, should be understood by those who are interested in the results.

III. SELLING EXPENSE AND EXPENSE RATIOS IN CLOTHING STORES

The questionnaire used by the Bureau of Business Research in co-operation with the National Association of Retail Clothiers in the study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing** provided for expenses to be reported under four headings: rent, wages and salaries, advertising, and general expense. These different elements of expense have been fully analyzed in the Bureau's study referred to above. It is unnecessary here to describe either the method employed or the results obtained.

Partly as a necessary step in the analysis of expenditures under the above headings and partly as an editing process preliminary to analysis, the expenses reported were distributed according to a classification in which selling expense plays an important part. It is with the analysis of expenditures classified in this form that this study deals.

"Selling expense," as used herein, includes the wages and salaries of salesmen and such part—as nearly as could be determined—of the salaries of proprietors who gave part of their time to selling, as should properly be so charged. It also includes expenditures for bushelling, for wrappings and containers, for delivery expense, and all expenditures for advertising, including the salaries

of employees such as window trimmers and advertising men.

Such portions of selling expense as are separately discussed below are fully defined. For present purposes, the above definition will suffice to indicate what is meant by "selling expense."

1.—SELLING EXPENSE FOR CLOTHING STORES CLASSIFIED BY YEARS, BY SIZE, AND BY LOCATION.

For each of the years 1919, 1918, and 1914, the records of 154 stores are available for study, while for 1919 alone, use is made of the records of 303 stores. The experience of this larger group is treated separately, inasmuch as it is desirable in the analysis to have as complete a sampling of stores as possible.

The method of presenting the data is similar to that followed in the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*, expense items being expressed in units of sales, total expense, or otherwise as the case may be.

A.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, 1919, 1918, and 1914.

The average amounts of selling expense in terms of sales for the 154 stores under consideration for the years 1919, 1918, and 1914 are set

* Prentice-Hall, Inc., New York City.

TABLE 1

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES, 1919, 1918, AND 1914

Years	Number of Store-years	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales				
				Amount	Per Cent.			
					Graphic			
					0	20	40	60 80 100 120
Total (Average)	462	\$44,835,499	\$4,851,112	\$10.82				
1919	154	20,892,764	2,182,027	10.44				
1918	154	14,714,515	1,609,671	10.94				
1914	154	9,228,220	1,059,414	11.48				

Average \$10.82

out in Table 1. In 1914, \$11.48 out of every \$100 of total net sales was expended for selling purposes. In 1918, the amount was \$10.94, and in 1919, \$10.44. That is, between 1914 and 1918, and 1914 and 1919, selling expense in terms of total net sales decreased, the percentage of change between 1914 and 1918 being 4.7, and between 1914 and 1919, 9.1.

These amounts and percentages of change characterize identical stores. During the period in question, both

the sales and selling expense of the stores increased. Sales, however, increased more rapidly than selling expense with the result that selling expense in terms of sales decreased. These relationships are shown in Table 2.

It is also of interest for the 154 stores to compare the relations of the selling expense to the total expense of doing business. In 1914 the proportion of total expense attributable to selling, as defined above, was \$48.86.

TABLE 2

AVERAGE AMOUNT AND PER CENT. INCREASE OR DECREASE OF TOTAL NET SALES AND SELLING EXPENSE PER STORE, AND AVERAGE AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES, 1919, 1918, AND 1914







Years	Average Amount of Total Net Sales per Store			Average Amount of Selling Expense per Store			Average Amount of Selling Expense per \$100 of Total Net Sales		
	Amount	Per Cent. Increase over 1914		Amount	Per Cent. Increase over 1914		Amount	Per Cent. Decrease from 1914	
		Actual	Graphic		Actual	Graphic		Actual	Graphic
			0 20 40 60 80 100 120 140			0 20 40 60 80 100 120			0 20 40 60 80 100
1919	\$135,667	126.4		\$14,169	106.0		\$10.44	9.1	
1918	95,549	59.5		10,432	51.9		10.94	4.7	
1914	59,924			6,879			11.48		

By 1918 this amount had increased to \$49.63, and by 1919 to \$51.06. Stated in another way, essentially \$50 out of every \$100 of total expense is attributable to selling.

Table 3 shows that the average total expense of these stores increased between 1914 and 1918 by 49.6 per cent. and between 1914 and 1919 by 97.1 per cent. At the same time, their selling expense increased between 1914 and 1918 by 51.9 per cent. and between 1914 and 1919 by 106.0 per cent. When selling expense is ex-

the stores are classified by size. Table 4 shows the relation between selling expense and total net sales, and Table 5, the relation between selling expense and total expense for the 154 stores classified by size. The amounts of selling expense per \$100 of total net sales decreased between 1914 and 1918, and between 1918 and 1919 for each group of stores; the decrease being most noticeable for stores with sales less than \$40,000 and for those with sales between \$40,000 and \$80,000.

TABLE 3
AVERAGE AMOUNT AND PER CENT. INCREASE OR DECREASE OF TOTAL EXPENSE AND OF SELLING EXPENSE PER STORE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE, FOR 154 IDENTICAL STORES, 1919, 1918, AND 1914

Years	Average Amount of Total Expense per Store			Average Amount of Selling Expense per Store			Average Amount of Selling Expense per \$100 of Total Expense		
	Amount	Per Cent. Increase over 1914		Amount	Per Cent. Increase over 1914		Amount	Per Cent. Increase over 1914	
		Actual	Graphic		Actual	Graphic		Actual	Graphic
			0 20 40 60 80 100			0 20 40 60 80 100 120			0 20 40 60 80 100
1919	\$27,749	97.1		\$14,169	106.0		\$51.06	4.5	
1918	21,059	49.6		10,452	51.9		49.63	1.6	
1914	14,080			6,879			48.86		

pressed as a proportion of total expense, it is found that there was an increase of 1.6 per cent. between 1914 and 1918 and of 4.5 per cent. between 1914 and 1919.

B.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and Per \$100 of Total Expense, for Stores in 1919, 1918, and 1914, Classified by Size.

What is true for the 154 stores treated as a total is also true when

The direction of change from year to year in the relation of selling expense to total expense, when the stores are classified by size, is not so evident. For the stores with annual sales less than \$80,000, the amounts decreased between 1914 and 1918, and 1918 and 1919, while for those with sales of \$80,000 and over there is an uncertainty as to direction, the average amount in 1918 being lower than the amount in either 1914 or 1919, for the group with sales of \$80,000 to \$180,000, and higher than the amounts for

TABLE 4

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED
BY SIZE, 1919, 1918, AND 1914

Classified Total Net Sales (in 000's)	Years	Number of Store- years	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
						0	20	40	60	80	100	120	140			
Total (Average)	Total (Average)	462	\$44,835,499	\$4,651,112	\$10.82											100.0
	1919	154	20,892,764	2,182,027	10.44											96.5
	1918	154	14,714,515	1,609,671	10.94											101.1
	1914	154	9,228,220	1,059,414	11.49											106.1
Under \$40	Total (Average)	129	3,590,553	304,954	8.49											78.5
	1919	14	428,714	29,018	6.77											62.6
	1918	42	1,256,795	101,621	8.09											74.8
	1914	73	1,905,044	174,315	9.15											84.6
\$40 to \$50	Total (Average)	172	9,775,007	913,357	9.34											86.3
	1919	57	3,222,468	246,207	7.64											70.6
	1918	63	3,662,794	345,293	9.43											87.2
	1914	52	2,889,745	321,857	11.14											103.0
\$50 to \$100	Total (Average)	117	13,695,639	1,491,801	10.89											100.6
	1919	58	6,866,815	719,436	10.48											96.9
	1918	35	4,090,203	445,138	10.88											100.6
	1914	24	2,738,621	327,227	11.95											110.4
\$100 & over	Total (Average)	44	17,774,300	2,141,000	12.05											111.4
	1919	25	10,374,767	1,187,366	11.44											105.7
	1918	14	5,704,723	717,619	12.58											116.3
	1914	5	1,694,810	236,015	13.93											128.7

Average \$10.82

these years for the stores with sales
of \$180,000 and over.

1914, Classified by Size of City in
Which Located.*

C.—Yearly Amounts of Selling Ex-
pense per \$100 of Total Net Sales
and per \$100 of Total Expense,
for Stores in 1919, 1918, and

It is of interest to compare the
relations of selling expense to sales
and to total expense, from year to

* Population figures are for 1920.

TABLE 5

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE, 1919, 1918, AND 1914

Classified Total Net Sales (in 000's)	Years	Number of Store- years	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	462	\$9,684,815	\$4,951,112	\$50.09								100.0
	1919	154	4,273,325	2,182,027	51.06								101.9
	1918	154	3,243,123	1,609,671	49.63								99.1
	1914	154	2,168,367	1,059,414	48.86								97.5
Under \$40	Total (Average)	129	741,381	304,954	41.13								82.1
	1919	14	76,237	29,018	38.06								76.0
	1918	42	248,315	101,621	40.92								81.7
	1914	73	416,829	174,315	41.82								83.5
\$40 to \$80	Total (Average)	172	1,991,375	913,357	46.10								92.0
	1919	57	566,182	246,207	43.49								86.8
	1918	63	755,488	345,293	45.70								91.2
	1914	52	659,705	321,857	48.79								97.4
\$80 to \$180	Total (Average)	117	2,997,244	1,491,801	51.49								102.8
	1919	53	1,361,844	719,436	52.83								105.5
	1918	35	905,872	445,138	49.14								98.1
	1914	24	629,528	327,227	51.98								103.8
\$180 & over	Total (Average)	44	4,064,815	2,141,000	52.67								105.2
	1919	25	2,269,062	1,187,366	52.33								104.5
	1918	14	1,333,448	717,619	53.82								107.4
	1914	5	462,305	236,015	51.05								101.9
Average \$50.09													

year, for all the stores, when they are classified by the size of the city in which they are located. Such comparisons are shown in Tables 6 to 9, inclusive.

One hundred and fifteen of the 154

stores are located in cities with population of less than 40,000. Between 1914 and 1918 the sales of these stores increased by 49.4 per cent. and between 1914 and 1919, by 109.4 per cent. Corresponding to these in-

creases in sales, were increases of 40.8 per cent. and 85.4 per cent., respectively, in selling expense. When the amounts of selling expense are expressed in terms of total net sales, they are found to have decreased between 1914 and 1918 by 5.8 per cent. and between 1914 and 1919 by 11.5 per cent.

The percentages of increase in sales were noticeably larger between 1914 and 1918, and between 1918 and 1919 for the 39 stores located in cities with population of 40,000 and over than for those in the small cities. The percentages of increase in selling expense, however, were also larger, the result being that the percentages of decrease in selling expense per \$100 of total net sales were smaller for the stores in the large cities than for those in the small cities for both 1918 and 1919 when compared with 1914.

Relatively, therefore, the advantage in the increase in sales accruing to the stores in the large, over those located in the small cities, is more than compensated for by the increase in selling expense.

When selling expense is expressed in relation to total expense for these same stores, as in Table 7, a somewhat different story is told. For the 115 stores in the small cities the percentage of increase in the amount of selling expense, as between 1914 and 1918, was almost precisely the same as that in total expense, while between 1914 and 1919 it exceeded that in total operating expense. When the amounts of selling expense are expressed in relation to total expense, the result is that between 1914 and 1918 the amount decreased by 0.1 per cent. and between 1914 and 1919 increased by 3.6 per cent.

TABLE 6

RELATION OF SELLING EXPENSE TO TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Stores	Net Sales			Selling Expense				
			Total	Average Amount per Store		Total	Average Amount per Store		Per \$100 of Total Net Sales	
				Amount	Per Cent. Increase over 1914		Amount	Per Cent. Increase over 1914	Amount	Per Cent. Decrease from 1914
Total (Average)	1919	154	\$20,892,764	\$135,667	126.4	\$2,182,027	\$14,169	106.0	\$10.44	9.1
	1918	154	14,714,515	95,549	59.5	1,609,671	10,452	51.9	10.94	4.7
	1914	154	9,228,220	59,924		1,059,414	6,879		11.48	
Under 40	1919	115	10,005,585	87,005	109.4	896,863	7,799	85.4	8.96	11.5
	1918	115	7,136,283	62,055	49.4	680,787	5,920	40.8	9.54	5.8
	1914	115	4,777,138	41,540		463,712	4,206		10.13	
40 and over	1919	39	10,887,179	279,158	144.6	1,285,164	32,953	123.2	11.80	8.7
	1918	39	7,578,232	194,314	70.3	928,884	23,818	61.3	12.26	5.2
	1914	39	4,451,082	114,130		575,702	14,762		12.93	

Similar, but larger, percentages of increase in total and in selling expenses were experienced for the 39 stores located in the large cities. Between 1914 and 1918, the total operating expense increased 57.0 per cent. and the total selling expense, 61.3 per cent. Between 1914 and 1919 the same expenses increased, respectively, 112.7 and 123.2 per cent. The result

cities, when expressed in terms of sales, decreasing more, and when expressed in terms of total expense, increasing less than the amounts for the stores in the large cities.

The relations of the amounts of selling expense to total net sales and to total operating expense, respectively, for the 154 stores classified by the size of the city in which they are

TABLE 7

RELATION OF SELLING EXPENSE TO TOTAL EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Stores	Total Expense			Selling Expense				
			Amount	Average Amount per Store		Total	Average Amount per Store		Per \$100 of Total Expense	
				Amount	Per Cent. Increase over 1914		Amount	Per Cent. Increase over 1914	Amount	Per Cent. Increase or Decrease from 1914
Total (Average)	1919	154	\$4,273,325	\$27,749	97.1	\$2,132,027	\$14,169	106.0	\$51.06	+4.5
	1918	154	3,243,123	21,059	49.6	1,602,671	10,452	51.9	49.63	+1.6
	1914	154	2,160,369	14,000		1,050,414	6,879		48.86	
Under 40	1919	115	1,793,459	15,595	78.9	836,863	7,299	85.4	50.01	+3.6
	1918	115	1,412,863	12,286	40.3	680,787	5,920	40.8	48.18	-0.1
	1914	115	1,002,412	8,717		483,712	4,206		48.25	
40 and over	1919	39	2,479,866	63,586	112.7	1,295,164	32,953	123.2	51.82	+4.9
	1918	39	1,830,260	46,930	57.0	938,984	23,818	61.3	50.75	+2.8
	1914	39	1,165,955	29,896		575,702	14,762		49.38	

of these increases is that selling expense, measured in terms of total operating expense, increased 2.8 per cent. between 1914 and 1918, and 4.9 per cent. between 1914 and 1919.

When Tables 6 and 7 are compared, it is of interest to observe for both groups of stores that the amounts of selling expense in terms of sales relatively decreased, and in terms of total expense relatively increased, the amounts for the stores in the small









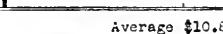
located, are graphically shown for each of the years in Tables 8 and 9. In Table 8 the amounts are expressed in terms of total net sales. While for the three years combined, the average amount of selling expense for each \$100 of sales is \$10.82 for the entire group of stores, the amount is \$9.40 for the stores in the small cities, and \$12.17 for those in the large cities. That is, the amount for the stores in the small cities is 86.9 per cent., while

that for the stores located in the large cities is 112.5 per cent. of the average for the entire group. From 1914 to 1919 the amounts for the stores in both city-groups decreased, the extent of the change being relatively larger

increased from 1914 to 1918, and 1914 to 1919. The changes, however, are small, the amounts for the stores differently located very closely approximating the average for the entire group.

TABLE 8

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Store-years	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales							
					Amount	Per Cent.						
						Graphic						Actual
						0	20	40	60	80	100	
Total (Average)	Total (Average)	462	\$44,835,499	\$4,851,112	\$10.82							100.0
	1919	154	20,892,764	2,182,027	10.44							96.5
	1918	154	14,714,515	1,609,671	10.94							101.1
	1914	154	9,228,220	1,059,414	11.48							106.1
Under 40	Total (Average)	345	21,919,006	2,061,362	9.40							86.9
	1919	115	10,005,535	896,863	8.96							82.8
	1918	115	7,136,283	680,787	9.54							89.2
	1914	115	4,777,138	483,712	10.13							93.6
40 and over	Total (Average)	117	22,916,493	2,789,750	12.17							112.5
	1919	39	10,887,179	1,285,164	11.80							109.1
	1918	39	7,573,232	928,884	12.26							113.3
	1914	39	4,451,082	575,702	12.93							119.5
					Average \$10.82							

Average \$10.82

for the stores in cities with population under 40,000. It is to be noted that, absolutely, the differences are almost identical.











When selling expense is expressed in terms of total operating expense, the amounts for stores in the two city-groups, with one slight exception,

D.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, for Stores Classified by Size and by Size of City in Which Located, 1919, 1918, and 1914.*

* Population figures are for 1920.

TABLE 9

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED
BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Store- years	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	462	\$9,684,815	\$4,251,112	\$50.09								100.0
	1919	154	4,273,325	2,182,027	51.06								101.9
	1918	154	3,243,123	1,609,671	49.63								99.1
	1914	154	2,168,367	1,059,414	48.86								97.5
Under 40	Total (Average)	345	4,208,734	2,061,362	48.98								97.8
	1919	115	1,793,459	896,863	50.01								99.8
	1918	115	1,412,363	680,787	48.18								96.2
	1914	115	1,002,412	483,712	48.25								96.3
40 and over	Total (Average)	117	5,476,081	2,789,750	50.94								101.7
	1919	39	2,479,866	1,285,164	51.82								103.5
	1918	39	1,830,260	928,384	50.75								101.3
	1914	39	1,165,955	575,702	49.38								98.6

Average \$50.03

Two groups of stores are available for the study of the relation of selling expense to sales for stores of different size. The first—303 stores—covers the year 1919 alone; the second—154 stores—applies to each of the years 1919, 1918, and 1914. In 1919, based upon the records of 303 stores, with total sales of \$36,193,718 and selling expense of \$3,595,401, the ratio of selling expense to sales is \$9.93. In other words, it costs \$9.93 in selling expense, as defined, to sell \$100 worth of goods. This amount, however,

varies noticeably for stores of different size. For the 45 stores with annual sales of less than \$40,000 the amount is \$6.46 and for the 43 stores with sales of \$180,000 and over, it is \$11.45. These amounts, respectively, apply to stores with the smallest and the largest annual sales. An inspection of the total section of Table 10 reveals the unmistakable tendency for the ratios of selling expense to total net sales to increase as the stores increase in size. This table, however, refers solely to 1919. When another

group of stores is considered for the same year, as in Table 12, a like condition is observed. The amount of selling expense per \$100 of total net sales for this group as a total is somewhat larger, but the direction of

and size. The total sections of these tables show the amounts of selling expense per \$100 of total net sales, first for the three years 1919, 1918, and 1914, combined, and second, for the respective years. For the com-

TABLE 10

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, FOR STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales									
					Amount	Per Cent.							Actual	
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	303	\$36,193,718	\$3,595,401	\$9.93								100.0	
	Under \$40	45	1,399,886	90,453	6.46								65.1	
	\$40 to \$80	113	6,500,336	463,566	7.13								71.8	
	\$80 to \$180	102	11,986,362	1,174,364	9.80								98.7	
	\$180 & over	43	16,307,134	1,867,018	11.45								115.3	
Under 40	Total (Average)	225	17,978,319	1,490,026	8.29								83.5	
	Under \$40	44	1,372,066	86,813	6.33								63.7	
	\$40 to \$80	99	5,610,593	366,503	6.89								69.4	
	\$80 to \$180	70	8,138,365	722,670	8.88								89.4	
	\$180 & over	12	2,857,295	294,040	10.29								103.6	
40 and over	Total (Average)	78	19,215,399	2,105,375	11.56								116.4	
	Under \$40	1	27,820	3,640	13.08								131.7	
	\$40 to \$80	14	869,743	77,063	8.66								87.2	
	\$80 to \$180	32	3,847,997	451,694	11.74								118.2	
	\$180 & over	31	13,449,839	1,572,978	11.70								117.8	
Average \$9.93														

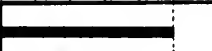












change in the amounts from store-group to store-group nevertheless follows closely that observed for the 303 stores.

In Tables 11 to 14, inclusive, 154 stores are classified by years, location,

combined years, the average amount of selling expense is \$10.82. For the smallest stores it is \$8.49 and for the largest, \$12.05, the amounts increasing as the stores increase in size. Such a condition is observed also for

TABLE 11

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE
OF CITY AND STORE, 1919, 1918, AND 1914, COMBINED

Size of City (in 000's.)	Classified Total Net Sales (in 000's)	Number of Store-years	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales							
					Amount	Per Cent.						
						Graphic						Actual
						0	20	40	60	80	100	
Total (Average)	Total (Average)	462	\$44,835,499	\$4,851,112	\$10.82							100.0
	Under \$40	129	3,590,553	304,954	8.49							78.5
	\$40 to \$80	172	9,775,007	913,357	9.34							86.3
	\$80 to \$180	117	13,695,639	1,491,301	10.89							100.6
	\$180 & over	44	17,774,300	2,141,000	12.05							111.4
Under 40	Total (Average)	345	21,912,006	2,061,362	9.40							86.9
	Under \$40	121	3,317,338	276,723	8.34							77.1
	\$40 to \$80	138	7,650,532	670,140	8.76							81.0
	\$80 to \$180	77	8,832,022	892,563	10.11							93.4
	\$180 & over	9	2,119,114	221,936	10.47							96.8
40 and over	Total (Average)	117	22,916,493	2,789,750	12.17							112.5
	Under \$40	8	273,215	29,231	10.33							95.5
	\$40 to \$80	34	2,124,475	243,217	11.45							105.8
	\$80 to \$180	40	4,863,617	599,238	12.32							113.9
	\$180 & over	35	15,655,186	1,919,064	12.26							113.3
Average \$10.82												

each of the years when treated separately.

In 1919, the average amount was \$10.44, in 1918, \$10.94, and in 1914, \$11.48. That is, from year to year, the amounts decreased as is shown graphically in Table 1. Moreover, the amounts decreased from year to year for each group of stores.

Attention should be called to the fact that store identity is not maintained throughout the various years in any of the sales-groups. The rate

at which sales increase for the respective stores varies so that from year to year each group does not necessarily contain the same stores nor the same number of stores.

An analysis of the relation of selling expense to total expense may also be made for the 154 stores, classified by size. This is done in Tables 15 to 18, inclusive. It is thought to be sufficient to compare identical stores for this purpose.

Based upon the three-year experi-

TABLE 12

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR 154 STORES CLASSIFIED BY
SIZE OF CITY AND STORE, 1919

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales								
					Amount	Per Cent.							
						Graphic							
						0	20	40	60	80	100	120	140
Total (Average)	Total (Average)	154	\$20,892,764	\$2,182,027	\$10.44								100.0
	Under \$40	14	428,714	29,019	6.77								64.8
	\$40 to \$80	57	3,222,468	246,207	7.64								73.2
	\$80 to \$180	58	6,866,815	719,436	10.48								100.4
	\$180 & over	25	10,374,767	1,187,366	11.44								109.6
Under 40	Total (Average)	115	10,005,595	896,863	8.96								85.8
	Under \$40	14	428,714	29,018	6.77								64.8
	\$40 to \$80	51	2,836,747	211,678	7.46								71.5
	\$80 to \$180	44	5,255,410	509,410	9.69								92.8
	\$180 & over	6	1,484,714	146,757	9.88								94.6
40 and over	Total (Average)	39	10,887,179	1,285,164	11.80								113.0
	Under \$40	-	-	-	-								-
	\$40 to \$80	6	335,721	34,529	8.95								85.7
	\$80 to \$180	14	1,611,405	210,026	13.03								124.8
	\$180 & over	19	8,890,053	1,040,609	11.71								112.2

Average \$10.44

ence of 154 identical stores, the average amount of selling expense per \$100 of total expense is \$50.09. In 1919 it was \$51.06, in 1918, \$49.63, and in 1914, \$48.86. That is, the amounts of selling expense per \$100 of total expense increased between 1914 and 1918, and 1918 and 1919. When the stores are considered with respect to size for the combined and for each of the years, the amounts increase as the stores increase in size. For the three years combined, the

amount for the stores with annual sales under \$40,000 is \$41.13, while for those with annual sales of \$180,000 and over it is \$52.67. Relatively, the amount for the small stores is 82.1 per cent., and for the large stores, 105.2 per cent. of the average for all the stores. Between these limits, the amounts increase as the stores increase in size.

In 1919, the average amount of selling expense per \$100 of total expense was \$51.06. For the stores having

TABLE 13

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR 154 STORES CLASSIFIED BY
SIZE OF CITY AND STORE, 1918

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	154	\$14,714,515	\$1,609,671	\$10.94								100.0
	Under \$40	42	1,256,795	101,621	8.09								73.9
	\$40 to \$80	63	3,662,794	354,293	9.43								86.2
	\$80 to \$180	35	4,090,205	445,138	10.88								99.5
	\$180 & over	14	5,704,723	717,619	12.58								115.0
Under 40	Total (Average)	115	7,136,283	680,787	9.54								87.2
	Under \$40	41	1,221,199	99,513	8.15								74.5
	\$40 to \$80	49	2,776,272	244,788	8.82								80.0
	\$80 to \$180	22	2,504,412	261,307	10.43								95.3
	\$180 & over	3	634,400	75,179	11.85								108.3
40 and over	Total (Average)	39	7,578,232	928,884	12.26								112.1
	Under \$40	1	35,596	2,108	5.92								54.1
	\$40 to \$80	14	886,522	100,505	11.34								103.7
	\$80 to \$180	13	1,585,791	183,831	11.59								105.9
	\$180 & over	11	5,070,323	642,440	12.67								115.8
Average \$10.94													

Average \$10.94

annual sales under \$40,000 it was \$38.06 and for those having annual sales of \$180,000 and over, \$52.33. Similar differences for stores of different size hold for the other years. The graphic parts of the total sections of Tables 17 and 18 reveal these facts for 1918 and 1914.














In the discussion of the relation of selling expense to sales and total expense for stores of different size, no distinction was made for stores according to location. A classification

providing for this is made in Tables 10 to 18, inclusive, two city-groups being distinguished: cities with population of less than 40,000 and cities with population of 40,000 and over.

The records of 303 stores for 1919 are available for the analysis of the relation of selling expense to total net sales for stores classified by both size and location. Details are contained in Table 10. For the 225 stores located in the small cities, selling expense constitutes \$8.29 per \$100 of total

TABLE 14

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR 154 STORES CLASSIFIED BY
SIZE OF CITY AND STORE, 1914

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
0 20 40 60 80 100 120 140																
Total (Average)	Total (Average)	154	\$9,228,220	\$1,059,414	\$11.43											109.0
	Under \$40	73	1,905,044	174,315	9.15											73.7
	\$40 to \$80	52	2,899,745	321,857	11.14											97.0
	\$80 to \$180	24	2,739,621	327,227	11.95											104.1
	\$180 & over	5	1,694,810	236,015	13.93											121.3
Under 40	Total (Average)	115	4,777,138	493,712	10.13											89.2
	Under \$40	66	1,667,425	149,192	8.89											77.4
	\$40 to \$80	38	2,037,513	213,674	10.49											91.1
	\$80 to \$180	11	1,072,200	121,846	11.36											99.0
	\$180 & over	-	-	-	-											-
40 and over	Total (Average)	39	4,451,082	575,702	12.93											112.6
	Under \$40	7	237,619	26,123	10.99											95.7
	\$40 to \$80	14	852,232	108,183	12.69											110.5
	\$80 to \$180	13	1,666,421	205,391	12.32											107.3
	\$180 & over	5	1,694,810	236,015	13.93											121.3
Average \$11.43																

net sales, while for the 78 stores located in large cities it constitutes \$11.56. That is, the average amount for the first group is 83.5 per cent., and for the second group, 116.4 per cent. of the average for all of the stores. For the 154 stores which are compared from year to year, the average amount for 1919 for the 115 stores in the small cities is \$8.96 and for the 39 stores in the large cities, \$11.80. The amounts of selling expense per \$100 of total net sales are not only

larger for the stores in the large, than for those in the small cities, when the stores are treated as a total, but also when those of a given size but with different location are compared.

For both groups of stores differently located, the amounts of selling expense per \$100 of total net sales increase as the stores increase in size. For the 225 stores in the small cities the difference between the amounts of selling expense per \$100 of total net sales for the small and the large

stores is 62.5 per cent. Omitting the single store in the large city-group, which has a selling expense of \$13.08 per \$100 of total net sales, the same tendency for the amounts to increase as the stores increase in size, noted for the stores located in small cities, holds for those located in the large cities. The number of stores located in the large cities, however, is relatively small and serves as an uncertain basis for generalization.

The year-to-year comparison of the relation of selling expense to total net sales for the 154 identical stores, distributed according to location, is interesting. For each of the years, with a single exception, the amounts increase as the stores increase in size. The trend is so unmistakably evident as to warrant the conclusion that selling expense in terms of sales is higher in the large, than it is in the small stores.

TABLE 15

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919, 1918, AND 1914, COMBINED

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Store-years	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	462	\$9,684,815	\$4,851,112	\$50.09								100.0
	Under \$40	129	741,381	304,954	41.13								82.1
	\$40 to \$80	172	1,981,375	913,357	46.10								92.0
	\$80 to \$180	117	2,897,244	1,491,801	51.49								102.8
	\$180 & over	44	4,064,815	2,141,000	52.67								105.2
Under 40	Total (Average)	345	4,208,734	2,061,362	48.98								97.8
	Under \$40	121	669,915	276,723	41.31								82.5
	\$40 to \$80	138	1,455,231	670,140	46.05								91.9
	\$80 to \$180	77	1,667,871	892,563	53.52								106.8
	\$180 & over	9	415,717	221,936	53.39								106.6
40 and over	Total (Average)	117	5,476,061	2,789,750	50.94								101.7
	Under \$40	8	71,466	28,231	39.50								78.9
	\$40 to \$80	34	526,144	243,217	46.23								92.3
	\$80 to \$180	40	1,229,376	599,238	48.74								97.3
	\$180 & over	35	3,649,098	1,919,064	52.59								105.0

Average \$50.09

A similar comparison of the relation of selling expense to total expense may be made for the 154 stores differently located. For the combined years, the average amount of selling expense per \$100 of total expense for the 345 store-years, for stores in the small cities, as shown in Table 15, is \$48.98, and for the 117 store-years, for the stores in the large cities, \$50.94. That is, the amount for stores in the small cities is 97.8 per cent.,

and for the stores in the large cities, 101.7 per cent. of the average for all stores, irrespective of location. When stores of the same size, but with different location, are compared, an inverse condition obtains. The amounts are generally larger for the stores in the small than for those in the large cities. The size of the averages for the two city-groups is explained by the proportions of stores of different size which are included. Within each

TABLE 16

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE, FOR 154 STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919

























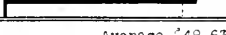
Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense							
					Amount	Per Cent.						Actual
						Graphic						
						0	20	40	60	80	100	
Total (Average)	Total (Average)	154	\$4,273,325	\$2,182,027	\$51.06							100.0
	Under \$40	14	76,237	29,018	38.06							74.5
	\$40 to \$80	57	566,162	246,207	43.49							85.2
	\$80 to \$180	58	1,361,844	719,436	52.83							103.5
	\$180 & over	25	2,269,062	1,187,366	52.33							102.5
Under 40	Total (Average)	115	1,793,459	896,863	50.01							97.9
	Under \$40	14	76,237	29,018	38.06							74.5
	\$40 to \$80	51	481,778	211,678	43.94							86.1
	\$80 to \$180	44	953,437	509,410	53.43							104.6
	\$180 & over	6	282,007	146,757	52.04							101.9
40 and over	Total (Average)	39	2,479,866	1,285,164	51.82							101.5
	Under \$40	-	-	-	-							-
	\$40 to \$80	6	84,404	34,529	40.91							80.1
	\$80 to \$180	14	408,407	210,026	51.43							100.7
	\$180 & over	19	1,987,055	1,040,609	52.37							102.6
Average \$51.06												

TABLE 17

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF
TOTAL EXPENSE, FOR 154 STORES CLASSIFIED BY SIZE OF
CITY AND STORE, 1918

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense								
					Amount	Per Cent.						Actual	
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	154	\$3,243,123	\$1,603,671	\$49.63							100.0	
	Under \$40	42	248,315	101,621	40.92							82.5	
	\$40 to \$80	63	755,488	345,203	45.70							92.1	
	\$80 to \$120	35	905,872	445,138	49.14							99.0	
	\$120 & over	14	1,333,448	717,619	53.92							108.4	
Under 40	Total (Average)	115	1,412,865	680,787	48.18							97.1	
	Under \$40	41	237,507	99,513	41.90							84.4	
	\$40 to \$80	49	539,094	244,788	45.41							91.5	
	\$80 to \$120	22	502,552	261,307	52.00							104.8	
	\$120 & over	3	133,710	75,179	56.23							113.3	
40 and over	Total (Average)	39	1,830,260	928,884	50.75							102.3	
	Under \$40	1	10,808	2,108	19.50							30.3	
	\$40 to \$80	14	216,394	100,505	46.45							93.6	
	\$80 to \$120	13	403,320	183,931	45.58							91.8	
	\$120 & over	11	1,199,738	642,440	53.55							107.9	
Average \$49.63													

city-group, the amounts increase as the stores increase in size, the average amount being \$41.31 for the small stores, and \$53.39 for the large stores in the small cities. Similar differences obtain for the stores located in the large cities. In this comparison the stores are combined for the years 1919, 1918, and 1914.

In Tables 16 to 18, inclusive, facts similar to those given immediately

above are shown for the years 1919, 1918, and 1914, separately. The average amount of selling expense per \$100 of total expense is larger for each of the years in the large cities than for those in the small cities. But when stores of the same size, but with different location, are compared an inverse condition obtains. It is this latter comparison which is the more significant. Within both groups of

TABLE 18

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF
TOTAL EXPENSE, FOR 154 STORES CLASSIFIED BY SIZE OF
CITY AND STORE, 1914

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense							
					Amount	Per Cent.						Actual
						Graphic						
0 20 40 60 80 100 120												
Total (Average)	Total (Average)	154	\$2,168,367	\$1,059,414	\$48.86							100.0
	Under \$40	73	416,829	174,315	41.82							85.6
	\$40 to \$80	52	659,705	321,857	48.79							99.9
	\$80 to \$180	24	629,528	327,227	51.98							106.4
	\$180 & over	5	462,305	236,015	51.05							104.5
Under 40	Total (Average)	115	1,002,412	483,712	48.25							98.8
	Under \$40	66	356,171	148,192	41.61							85.2
	\$40 to \$80	38	434,359	213,674	49.19							100.7
	\$80 to \$180	11	211,882	121,846	57.51							117.7
	\$180 & over	-	-	-	-							-
40 and over	Total (Average)	39	1,165,955	575,702	49.38							101.1
	Under \$40	7	60,658	26,123	43.07							88.1
	\$40 to \$80	14	225,346	108,183	48.01							98.3
	\$80 to \$180	13	417,646	205,381	49.18							100.7
	\$180 & over	5	462,305	236,015	51.05							104.5
Average \$48.86												

Average \$48.86

cities the amounts increase as the stores increase in size. To this general rule there are no exceptions, the regularity of the increase, however, being more noticeable in some than in other years. The graphic parts of

these tables throw into relief the changes from store-group to store-group, the lengths of the bars being proportional to the amounts which they represent.

E.—Summary.

From a consideration of Tables 1 to 18, inclusive, certain definite relationships between selling expense and sales, and selling expense and total expense, have been discovered.

- (1). The amounts of selling expense per \$100 of total net sales decreased between 1914 and 1918, and 1918 and 1919, notwithstanding the fact that the average amounts of total net sales and of selling expense per store increased between these years.
- (2). The average amount of selling expense per \$100 of total expense increased between 1914 and 1918, and 1918 and 1919, notwithstanding the fact that both total expense and selling expense per store increased between these years.
- (3). The amounts of selling expense per \$100 of total net sales decreased between 1914 and 1918, and 1918 and 1919, not only for all stores, but likewise for stores classified according to size.
- (4). The amounts of selling expense per \$100 of total expense which, as indicated above, increased between 1914 and 1918, and 1918 and 1919 for the stores treated as a whole, decreased for the stores with annual sales of less than \$40,000 and of \$40,000 to \$80,000. They are uncertain as to direc-

tion from year to year for stores with annual sales in excess of these amounts.

- (5). The amounts of selling expense per \$100 of total net sales are lower for each year and for all years for stores located in small cities than for those located in large cities.
- (6). The amounts of selling expense per \$100 of total expense are lower for each year and for the combined years for the stores in the small cities than for those in the large cities, when the stores are treated as a total. When stores of the same size, but with different locations are compared, an inverse condition obtains.
- (7). The amounts of selling expense per \$100 of total net sales increase as stores increase in size. This condition obtains for stores treated as a whole and as classified by city location, not only for the combined, but also for the individual years, 1919, 1918, and 1914.
- (8). The amounts of selling expense per \$100 of total expense increase as the stores increase in size. This condition obtains for the combined and for the individual years 1919, 1918, and 1914, not only for the stores as a whole, but also when they are classified by the size of the city in which they are located.

2.—YEARLY AMOUNTS OF SELLING EXPENSE IN RELATION TO THE AMOUNTS OF STOCK CARRIED, FOR STORES CLASSIFIED BY YEARS, BY SIZE, AND BY RATES OF STOCK TURNOVER.

The discussion of store inventories in the fifth volume of the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing* showed that inventories in terms of sales decreased between 1914 and 1918, and 1918 and 1919.* The amount per \$100 of total net sales for 223 stores in 1914 was \$43.70. For the same stores in 1918 it was \$41.44, and in 1919, \$32.72. Similar decreases for 149 stores are shown below in Table 20. In 1914 the average amount was \$43.44, in 1918, \$40.53, and in 1919, \$32.84. For the two groups of stores the amounts are strikingly the same and the direction of change from year to year identical. Moreover, a comparison for a varying and an identical number of stores from year to year showed that inventories in terms of sales decrease as stores increase in size, the regularity of the tendency being apparent not only when the stores are classified in wide, but also when they are placed in narrow sales-groups. These changes from year to year, and from store-group to store-group may be said to have been established beyond doubt for the stores concerned and they are thought to be true for all stores.†

* Vol. V, p. 418.

† Ibid., Vol. V, p. 420.

In seeking to discover the relations of selling expense to sales and to total expense, and to determine, if possible, the way in which selling expense may be reduced, a complete analysis has been made of selling expense when the stores are classified by the relative amounts of inventory carried. Moreover, the analysis is extended to stores when they are classified by size and by rates of stock turnover. It was hoped, from a detailed analysis of the store records available, that it would be possible to determine quantitatively the effect of size of inventory on selling expense. In this respect the conclusions reached are not wholly negative.

A.—*Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, 1919, 1918, and 1914.*

For the three years 1919, 1918, and 1914, the records of 149 stores are available for study. The selling expenses for the stores classified by amounts of inventory per \$100 of total net sales are expressed first, in terms of net sales, and second, in terms of total expense.

For the combined years, the stores having on the average an inventory of less than \$20 per \$100 of total net sales had a selling expense per \$100 of total net sales of \$8.40; the stores having on the average an inventory between \$20 and \$40 per \$100 of total net sales had a selling expense, similarly expressed, of \$11.66. From this figure as a maximum, the amounts of

selling expense per \$100 of total net sales decrease as the size of the inventories increase. It will be noted that the direction of the change in the amounts from inventory-group to inventory-group is certain only for those stores having inventories in excess of \$20 per \$100 of total net sales. This is true not only for the combined years, but also for the years separately.

A casual inspection of Table 19 might lead to the belief that the occasion for the low selling expense per \$100 of total net sales is the amount of inventory carried. This, however, is not necessarily the case. The discussion on pages 42 to 44 showed that the amounts of selling expense per \$100 of total net sales increase as stores increase in size. Further, the discussion in Volume V* of the Bureau's report on *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*, and in Tables 28 to 31, inclusive, following, show that the size of inventories per \$100 of total net sales decreases as the stores increase in size. That is, the stores which have high selling expense have relatively low inventories in terms of sales. Accordingly, the amounts of selling expense in terms of sales decrease as the size of the inventories, similarly expressed, increases. This condition, however, may be due not so much to the size of the inventories as to the size of the stores that reported the sales.

The importance of the size of the

* Page 420.

stores, as such, may be eliminated from consideration and the effect of the size of the inventory noted by expressing the selling expense per \$100 of total net sales in terms of the amount sold per \$1 of inventory.† This is done in column 6 of Table 19, and is graphically shown by the corresponding bars.

What do these figures reveal? The average selling expense per \$100 of total net sales for the amount sold per \$1 of inventory is \$4.09. For the stores having inventories of less than \$20 per \$100 of total net sales the corresponding cost is \$1.47. Selling expenses, so expressed, increase without an exception as the amounts of inventory in terms of sales increase. It should be kept in mind that in these figures the size of the store, as a controlling factor in determining selling expense, has been eliminated since in each case the selling expense per \$100 of total net sales applies to the amounts sold per \$1 of inventory. The uncertain trend of the amounts of selling expense per \$100 of total net sales, reflected in Table 19 for the stores with low inventories, has been removed and regularity secured as to the direction of change for stores with different amounts of inventory.

The above discussion which relates to the three years combined applies also to the individual years. Without an exception the selling expenses per \$100 of total net sales for the amount sold per \$1 of inventory increase in each of the years as the size

† The method by which this unit is computed is explained on page 4, item 17.

TABLE 19

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES FOR THE AMOUNT SOLD PER \$1 OF INVENTORY, FOR 149 IDENTICAL STORES CLASSIFIED BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Inventory per \$100 of Total Net Sales	Number of Store-years	Selling Expense per \$100 of Total Net Sales						Selling Expense per \$100 of Total Net Sales per Amount Sold per \$1 of Inventory																			
			Amount	Per Cent.					Amount	Per Cent.																		
				Graphic						Graphic																		
				0	20	40	60	80	100	120	0	20	40	60	80	100	120	140	160	180								
Total (Average)	Total (Average)	447	\$10.88						100.0	\$4.09										100.0								
	Under \$20	14	8.40						77.2	1.47										35.9								
	\$20 to \$40	168	11.66						107.2	3.50										85.6								
	\$40 to \$60	177	10.02						92.1	5.01										122.5								
	\$60 & over	88	9.37						86.1	6.55										160.1								
1919	Total (Average)	149	10.52						96.7	3.45										84.4								
	Under \$20	7	8.75						80.4	1.53										37.4								
	\$20 to \$40	83	10.98						100.9	3.29										80.4								
	\$40 to \$60	51	9.54						87.7	4.77										116.6								
	\$60 & over	8	7.85						69.4	5.28										129.1								
1918	Total (Average)	149	10.98						100.9	4.44										108.6								
	Under \$20	3	6.05						55.6	1.06										25.9								
	\$20 to \$40	46	12.47						114.6	3.74										91.4								
	\$40 to \$60	60	9.74						89.5	4.87										119.1								
	\$60 & over	40	9.35						85.9	6.54										159.9								
1914	Total (Average)	149	11.56						106.2	5.03										123.0								
	Under \$20	4	10.94						100.6	1.92										46.9								
	\$20 to \$40	39	12.71						116.8	3.61										93.2								
	\$40 to \$60	68	10.96						100.7	5.48										134.0								
	\$60 & over	40	9.95						91.5	6.96										170.1								
Average \$10.88																			Average \$4.09									

of the inventory measured in sales increases.

















A moment's consideration should be given to the averages for the three separate years. It will be recalled that inventories in terms of sales were relatively low in 1919. For the 149 stores in this year, the amount of selling expense per \$100 of total net sales was \$10.52, or \$0.46 less than in 1918 and \$1.04 less than in 1914. When the amounts of selling expense per \$100 of total net sales are shown for the amount sold per \$1 of inventory,

the difference in the conditions between the various years is increased, the selling expense in 1919 being approximately \$1 less than in 1918 and \$1.58 less than in 1914. This difference is attributable, not so much to the sales as such as it is to the low inventories in relation to sales in 1919.

The amounts of selling expense per \$100 of total net sales for stores in the combined years and for the years separately are averages. If the distribution of the amounts of selling expense per \$100 of total net sales is

TABLE 20

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 IDENTICAL STORES CLASSIFIED BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Selling Expense per \$100 of Total Net Sales	Number of Store-years	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
0 20 40 60 80 100 120 140 160																
Total (Average)	Total (Average)	447	\$43,599,972	\$16,369,406	\$37.64											100.0
	Under \$6	93	4,247,831	1,930,599	45.45											121.1
	\$6 to \$12	247	26,191,256	9,702,173	37.04											98.7
	\$12 & over	107	13,160,885	4,736,634	35.99											95.9
1919	Total (Average)	149	20,303,641	6,667,056	32.84											87.5
	Under \$6	38	2,322,782	879,810	37.86											100.9
	\$6 to \$12	80	12,418,163	4,055,317	32.66											87.0
	\$12 & over	31	5,562,696	1,731,929	31.13											82.9
1918	Total (Average)	149	14,322,667	5,804,340	40.53											108.0
	Under \$6	30	1,187,535	653,961	55.07											146.7
	\$6 to \$12	86	9,197,800	3,650,841	39.69											105.7
	\$12 & over	33	3,937,332	1,499,538	38.09											101.5
1914	Total (Average)	149	8,973,664	3,898,010	43.44											115.7
	Under \$6	25	737,514	396,828	53.81											143.3
	\$6 to \$12	81	4,575,293	1,996,015	43.63											116.2
	\$12 & over	43	3,660,857	1,505,167	41.12											109.5
Average \$37.54																

studied, it is found that 76 per cent. of the stores in the combined years had selling expenses per \$100 of total net sales less than \$12 and 55 per cent. between \$6 and \$12.

















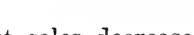
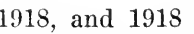
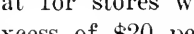
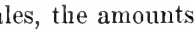
In further proof that the amounts of selling expense per \$100 of total net sales decrease as the size of the inventory in terms of sales increases, it may be noted for the combined years, as is shown in Table 20, that the average amount of inventory so expressed for stores with selling ex-

pense under \$6 per \$100 of total net sales is \$45.45. For the stores having selling expenses between \$6 and \$12 per \$100 of total net sales it is \$37.04, and for those with selling expenses of \$12 and over per \$100 of total net sales it is \$35.99. For each of the three years, similar decreases in the amounts of inventory per \$100 of total net sales characterize the stores with increasing selling expense. These relations are shown in Table 20.

In the foregoing discussion of 149

TABLE 21

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE, FOR 149 IDENTICAL STORES CLASSIFIED BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Inventory per \$100 of Total Net Sales	Number of Store-years	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense		
					Amount	Per Cent.	Actual
						Graphic 0 20 40 60 80 100 120	
Total (Average)	Total (Average)	447	\$9,450,641	\$4,745,829	\$50.22		100.0
	Under \$20	14	363,310	172,900	47.59		94.3
	\$20 to \$40	168	5,806,322	3,088,085	53.18		105.9
	\$40 to \$60	177	2,456,513	1,128,967	45.96		91.5
	\$60 & over	88	824,496	355,877	43.16		85.9
1919	Total (Average)	149	4,168,820	2,135,072	51.22		102.0
	Under \$20	7	209,266	105,711	50.52		100.6
	\$20 to \$40	83	3,117,375	1,649,518	52.91		105.4
	\$40 to \$60	51	751,639	345,965	46.03		91.7
	\$60 & over	8	90,540	33,878	37.42		74.5
1918	Total (Average)	149	3,163,345	1,573,249	49.73		99.0
	Under \$20	3	81,440	32,117	39.44		78.5
	\$20 to \$40	46	1,728,776	937,441	54.23		108.0
	\$40 to \$60	60	950,082	427,462	44.99		89.6
	\$60 & over	40	403,047	176,229	43.72		87.1
1914	Total (Average)	149	2,118,476	1,037,508	48.97		97.5
	Under \$20	4	72,604	35,072	48.31		96.2
	\$20 to \$40	39	960,171	501,126	52.19		103.9
	\$40 to \$60	66	754,792	355,540	47.10		93.8
	\$60 & over	40	330,909	145,770	44.05		87.7

Average \$50.22

stores for three years, comparisons have been made of the selling expense first, in terms of total net sales, and second, in terms of net sales for the amount sold per \$1 of inventory. The conclusions which have been reached are first, that selling expense per \$100

of total net sales decreased between 1914 and 1918, and 1918 and 1919. Second, that for stores with inventories in excess of \$20 per \$100 of total net sales, the amounts of selling expense in terms of sales decrease as the size of the inventories in terms

of sales increases. This tendency, however, as has been shown, is due to the store size and not to the size of inventory. Third, that the amounts of selling expense per \$100 of total net sales for the amount sold for each \$1 of inventory uniformly increase for the combined and for each of the years as the amounts of inventory per \$100 of total net sales increase. Fourth, that the selling expense per \$100 of total net sales per amount sold per \$1 of inventory was noticeably less in 1919 than in either of the other years, largely because of the relatively small inventories for the stores in this year. The general conclusion from the above discussion seems to be that irrespective of store size, stores which have large inventories have relatively high selling expense, and to suggest the practical conclusion that for all stores one way of keeping down selling expense is to reduce the size of the inventory in relation to sales.

Another method of comparing the amounts of selling expense for stores from year to year and for stores with different-sized inventories is to express them in terms of total expense. This is done in Table 21. For the combined years, the average selling expense per \$100 of total expense is \$50.22. For 1919 the amount was \$51.22, for 1918, \$49.73, and for 1914, \$48.97. That is, the amounts increased between 1914 and 1918, and 1918 and 1919. During these years both the total operating expense and the selling expense increased. For the 154 stores shown in Table 3, page 36, the total operating expense per

store increased between 1914 and 1918 by 49.6 per cent. and between 1914 and 1919 by 97.1 per cent. The corresponding increases in the amounts of selling expense per store were, respectively, 51.9 per cent. and 106.0 per cent. Similar increases from year to year hold for the 149 stores as shown in Table 20. But selling expense increased more rapidly than did total expense, with the result that from year to year selling expense increased when expressed in terms of total expense.

When the stores for the combined years and for the years separately are classified by the amounts of inventory per \$100 of total net sales, as in Table 21, the amounts of selling expense per \$100 of total expense on the whole decrease as the amounts of inventory per \$100 of total net sales increase. That is, there is an inverse relationship between the two factors. But this is more apparent than real. The same line of reasoning which is used above* to account for this margin applies here. It should be remembered that the stores with small inventories per \$100 of total net sales are generally larger than those with large inventories so expressed, and that both selling expense and total operating expense per \$100 of total net sales increase as stores increase in size. By consulting Tables 10 to 14, inclusive, pages 43 to 47, this condition for selling expense may be observed for stores with different location. The movement of total operating expense for stores of different

* Page 54.

TABLE 22

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR 149 IDENTICAL STORES CLASSIFIED BY SIZE
AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET
SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales	
					Amount	Per Cent.
						Graphic 0 20 40 60 80 100 120 Actual
Total (Average)	Total (Average)	447	\$43,599,972	\$4,745,829	\$10.88	100.0
	Under \$20	14	2,059,425	172,900	8.40	77.2
	\$20 to \$40	168	26,478,436	3,088,085	11.66	107.2
	\$40 to \$60	177	11,263,282	1,128,967	10.02	92.1
	\$60 & over	88	3,798,829	355,877	9.37	86.1
Under \$40	Total (Average)	127	3,532,911	298,231	8.44	77.6
	Under \$20	1	28,933	948	3.28	30.1
	\$20 to \$40	18	560,460	54,036	9.64	88.6
	\$40 to \$60	52	1,412,525	112,294	7.95	73.1
	\$60 & over	56	1,530,993	130,953	8.55	78.6
\$40 to \$80	Total (Average)	165	9,360,348	877,524	9.37	86.1
	Under \$20	6	402,009	29,622	7.37	67.7
	\$20 to \$40	52	3,083,049	283,795	9.21	84.7
	\$40 to \$60	82	4,458,869	428,579	9.61	88.3
	\$60 & over	25	1,416,421	135,528	9.57	88.0
\$80 to \$180	Total (Average)	112	13,121,494	1,445,029	11.01	101.2
	Under \$20	5	555,107	53,399	9.62	88.4
	\$20 to \$40	60	7,076,841	802,575	11.34	104.2
	\$40 to \$60	40	4,638,131	499,659	10.77	99.0
	\$60 & over	7	851,415	89,396	10.50	96.5
\$180 & over	Total (Average)	43	17,585,219	2,125,045	12.08	111.0
	Under \$20	2	1,073,376	88,931	8.29	76.2
	\$20 to \$40	38	15,758,086	1,947,679	12.36	113.6
	\$40 to \$60	3	753,757	88,435	11.73	107.8
	\$60 & over	-	-	-	-	-
Average \$10.88						

size is comprehensively treated in Volume III * of the Bureau's report on *Costs Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*. Table 21 should be interpreted with these facts in mind. As shown on page 57, the amounts of selling expense per \$100 of total net sales decrease as the size of inventories in terms of sales increases. But the amounts of selling expense per \$100 of total net sales per amount sold per \$1 of inventory increase. A direct relationship would also be secured, as in Table 19, were the amounts of selling expense per \$100 of total expense determined for each \$1 of inventory sold.

It seems unnecessary to express the amounts in this form or to repeat the discussion on this point and the conclusions to which it has led. It will be sufficient briefly to summarize the relation of selling expense to total expense as follows: First, the amounts increased from 1914 to 1918, and from 1918 to 1919. Second, the amounts decrease as the amounts of inventory per \$100 of total expense increase. Third, the amounts per amount sold per \$1 of inventory increase as the size of the inventory per \$100 of total net sales increases.

B.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, for Stores Classified by Size, 1919, 1918, and 1914.

In further consideration of the relation of selling expense to sales and to

total expense for stores with inventories of different size per \$100 of total net sales, it has been thought of interest to classify the stores with respect to size. This is done in detail in Tables 22 to 35, inclusive.

The method of presenting the data is as follows: First, to classify the stores by size and by amount of inventory per \$100 of total net sales for the combined and for the individual years, and to show the amounts of selling expense per \$100 of total net sales for the stores so treated. Second, to show the amounts of inventory per \$100 of total net sales for the stores of different size classified by amounts of selling expense per \$100 of total net sales. Third, for the same group of stores, to express the amounts of selling expense in terms of \$100 of total expense for the stores classified by size and by amounts of inventory per \$100 of total net sales.

In Tables 18 to 35, inclusive, the same 149 stores which were considered above are classified by years and by size. For the combined years 1919, 1918, and 1914, the average amounts of selling expense per \$100 of total net sales increase as the stores increase in size. For those with annual sales under \$40,000, it is \$8.44; for those with annual sales of \$40,000 to \$80,000 it is \$9.37; for those with annual sales of \$80,000 to \$180,000 it is \$11.01; and for those with sales of \$180,000 and over, it is \$12.08. These amounts closely correspond to those for the 154 identical stores shown in Table 11, page 44.

On the other hand, when the

* Pages 244 to 252, inclusive.

TABLE 23

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY
AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales							
					Amount	Per Cent.						
						Graphic						Actual
						0	20	40	60	80	100	
Total (Average)	Total (Average)	149	\$20,303,641	\$2,135,072	\$10.52							100.0
	Under \$20	7	1,208,118	105,711	8.75*							83.2
	\$20 to \$40	83	15,018,367	1,649,518	10.98							104.4
	\$40 to \$60	51	3,628,188	345,965	9.54							90.7
	\$60 & over	8	448,968	33,878	7.55							71.8
Under \$40	Total (Average)	14	428,714	29,018	6.77							64.4
	Under \$20	-	-	-	-							-
	\$20 to \$40	2	68,054	6,275	9.22							87.6
	\$40 to \$60	8	244,012	15,797	6.47							61.5
	\$60 & over	4	116,648	6,946	5.95							56.6
\$40 to \$80	Total (Average)	55	3,082,152	233,843	7.59							72.1
	Under \$20	2	150,276	7,320	4.87							46.3
	\$20 to \$40	22	1,287,723	94,720	7.36							70.0
	\$40 to \$60	28	1,472,999	122,592	8.32							79.1
	\$60 & over	3	171,154	9,211	5.38							51.1
\$80 to \$180	Total (Average)	56	6,607,089	700,800	10.61							100.9
	Under \$20	4	384,466	34,307	8.92							84.8
	\$20 to \$40	37	4,382,158	465,124	10.61							100.9
	\$40 to \$60	14	1,679,299	183,648	10.94							104.0
	\$60 & over	1	161,166	17,721	11.00							104.6
\$180 & over	Total (Average)	24	10,185,686	1,171,411	11.50							109.3
	Under \$20	1	673,376	64,084	9.52							90.5
	\$20 to \$40	22	9,280,432	1,083,399	11.67							110.9
	\$40 to \$60	1	231,878	23,928	10.32							98.1
	\$60 & over	-	-	-	-							-

Average \$10.52

TABLE 24

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY
AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales								
					Amount	Per Cent.							
						Graphic						Actual	
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	149	\$14,322,667	\$1,573,249	\$10.98							100.0	
	Under \$20	3	530,649	32,117	6.05							55.1	
	\$20 to \$40	46	7,517,748	937,441	12.47							113.6	
	\$40 to \$60	60	4,389,893	427,462	9.74							88.7	
	\$60 & over	40	1,884,377	176,229	9.35							85.2	
Under \$40	Total (Average)	42	1,256,795	101,621	8.09							73.7	
	Under \$20	-	-	-	-							-	
	\$20 to \$40	6	209,528	17,520	8.36							76.1	
	\$40 to \$60	13	381,673	27,892	7.31							66.6	
	\$60 & over	23	665,594	56,209	8.44							76.9	
\$40 to \$80	Total (Average)	60	3,501,019	331,958	9.49							86.3	
	Under \$20	2	130,649	7,270	5.56							50.6	
	\$20 to \$40	15	901,852	97,097	10.77							98.1	
	\$40 to \$60	29	1,632,061	144,693	8.87							80.8	
	\$60 & over	14	836,457	82,888	9.91							90.3	
\$80 to \$180	Total (Average)	33	3,860,130	422,051	10.93							99.5	
	Under \$20	-	-	-	-							-	
	\$20 to \$40	14	1,623,524	194,559	11.98							109.1	
	\$40 to \$60	16	1,854,280	190,370	10.27							93.5	
	\$60 & over	3	382,326	37,122	9.71							88.4	
\$180 & over	Total (Average)	14	5,704,723	717,619	12.58							114.6	
	Under \$20	1	400,000	24,847	6.21							56.6	
	\$20 to \$40	11	4,782,844	628,265	13.14							119.7	
	\$40 to \$60	2	521,879	64,507	12.36							112.6	
	\$60 & over	-	-	-	-							-	

Average \$10.98

TABLE 25

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY
AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales									
					Amount	Per Cent.								Actual
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	149	\$8,973,664	\$1,037,508	\$11.56									100.0
	Under \$20	4	320,658	35,072	10.94									94.6
	\$20 to \$40	39	3,942,321	501,126	12.71									109.9
	\$40 to \$60	66	3,245,201	355,540	10.96									94.8
	\$60 & over	40	1,465,484	145,770	9.95									86.1
Under \$40	Total (Average)	71	1,847,402	167,592	9.07									78.5
	Under \$20	1	28,933	948	3.28									28.4
	\$20 to \$40	10	282,878	30,241	10.69									92.5
	\$40 to \$60	31	786,840	68,605	8.72									75.4
	\$60 & over	29	748,751	67,798	9.05									78.3
\$40 to \$80	Total (Average)	50	2,777,177	311,723	11.22									97.1
	Under \$20	2	121,084	15,032	12.41									107.4
	\$20 to \$40	15	893,474	91,978	10.29									89.0
	\$40 to \$60	25	1,353,809	161,294	11.91									103.0
	\$60 & over	8	408,810	43,419	10.62									91.9
\$80 to \$180	Total (Average)	23	2,654,275	322,178	12.14									105.0
	Under \$20	1	170,641	19,092	11.19									96.8
	\$20 to \$40	9	1,071,159	142,892	13.34									115.4
	\$40 to \$60	10	1,104,552	125,641	11.37									98.4
	\$60 & over	3	307,923	34,553	11.22									97.1
\$180 & over	Total (Average)	5	1,694,810	236,015	13.93									120.5
	Under \$20	-	-	-	-									-
	\$20 to \$40	5	1,694,810	236,015	13.93									120.5
	\$40 to \$60	-	-	-	-									-
	\$60 & over	-	-	-	-									-

Average \$11.56

amounts of selling expense per \$100 of total net sales are expressed in terms of sales per \$1 of inventory, as in Table 26, they are essentially constant for the stores with annual sales less than \$180,000, and noticeably less for the group having annual sales of \$180,000 and over. This, however, is due not so much to the size of the store, as noted above, as it is to the size of the inventory. The large

stores are precisely those with low inventories per \$100 of total net sales. When selling expense is expressed in terms of sales per \$1 of inventory, the advantage accruing to large stores because of small inventory is at once evident. We are not so much concerned here, however, with the selling expense per \$100 of total net sales for stores of different size as we are with the amounts for stores of essentially

TABLE 26

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES FOR THE AMOUNT SOLD PER \$1 OF INVENTORY, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Amount of Selling Expense per \$100 of Total Net Sales per Amount Sold per Dollar of Inventory																								
		Average					1919					1918					1914									
		Actual	Graphic				Actual	Graphic				Actual	Graphic				Actual	Graphic								
			\$0	\$2	\$4	\$6		\$8	\$0	\$2	\$4		\$6	\$8	\$0	\$2		\$4	\$6	\$8	\$0	\$2	\$4	\$6	\$8	
Total (Average)	Total (Average)	\$4.09					\$3.45					\$4.44					\$5.03									
	Under \$20	1.47					1.53					1.66					1.92									
	\$20 to \$40	3.50					3.29					3.74					3.81									
	\$40 to \$60	5.01					4.77					4.87					5.48									
	\$60 & over	6.55					5.28					6.54					6.96									
Under \$40	Total (Average)	4.74					3.40					4.73					5.10									
	Under \$20	0.57					-					-					0.67									
	\$20 to \$40	2.89					2.77					2.51					3.21									
	\$40 to \$60	3.98					3.24					3.66					4.36									
	\$60 & over	5.98					4.16					5.90					6.33									
\$40 to \$60	Total (Average)	4.26					3.15					4.69					5.03									
	Under \$20	1.29					0.85					0.87					2.17									
	\$20 to \$40	2.76					2.21					3.23					3.09									
	\$40 to \$60	4.81					4.16					4.44					5.96									
	\$60 & over	6.69					3.76					6.93					7.43									
\$60 to \$100	Total (Average)	4.35					3.80					4.92					4.95									
	Under \$20	1.68					1.16					-					1.96									
	\$20 to \$40	3.40					3.19					3.59					4.00									
	\$40 to \$60	5.39					5.47					5.14					5.69									
	\$60 & over	7.34					7.69					6.79					7.84									
\$180 & over	Total (Average)	3.39					3.17					3.52					4.35									
	Under \$20	1.45					1.07					1.09					-									
	\$20 to \$40	3.71					3.50					3.94					4.35									
	\$40 to \$60	5.87					5.16					6.19					-									
	\$60 & over	-					-					-					-									
		Average \$4.09					Average \$3.45					Average \$4.44					Average \$5.03									

the same size, but with different amounts of inventory in relation to sales. If the comparisons are restricted to selling expense in terms of sales alone, for the stores of the same size, but with varying inventories, it is difficult to see any unmistakable tendency for the selling expense either to increase or decrease. This

is noticeably true for the stores with sales under \$40,000. For the stores with annual sales of \$40,000 to \$80,000, however, the amounts seem to increase with the size of the inventory for the stores having inventories less than \$60 per \$100 of total net sales. On the other hand, an inverse condition characterizes the stores with an-

TABLE 27

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF AVERAGE STOCK PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Average Stock per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales								
					Amount	Per Cent.							
						Graphic Actual							
					0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	124	\$18,301,848	\$1,928,893	\$10.54								100.0
	Under \$20	13	4,466,232	557,827	12.49								118.5
	\$20 to \$40	65	10,722,916	1,093,873	10.20								96.8
	\$40 & over	46	3,112,700	277,193	8.91								84.5
Under \$40	Total (Average)	16	485,550	32,474	6.69								63.5
	Under \$20	-	-	-	-								-
	\$20 to \$40	7	229,242	15,387	6.71								63.7
	\$40 & over	9	256,308	17,087	6.67								63.3
\$40 to \$80	Total (Average)	48	2,747,107	215,513	7.85								74.5
	Under \$20	3	213,343	17,503	8.20								77.8
	\$20 to \$40	18	1,044,586	72,369	6.93								65.7
	\$40 & over	27	1,489,178	125,641	8.44								80.1
\$80 to \$180	Total (Average)	36	4,411,137	448,296	10.16								96.4
	Under \$20	3	301,036	25,147	8.35								79.2
	\$20 to \$40	24	2,974,765	312,612	10.51								99.7
	\$40 & over	9	1,135,336	110,537	9.74								92.4
\$180 & over	Total (Average)	24	10,866,054	1,232,610	11.57								109.8
	Under \$20	7	3,951,853	515,177	13.04								123.7
	\$20 to \$40	16	6,474,323	603,505	10.71								101.6
	\$40 & over	1	231,878	23,928	10.32								97.9

Average \$10.54

nual sales of \$80,000 to \$180,000. For the largest stores—those with annual sales of \$180,000 and over—the instances are insufficient for each of the inventory-groups to serve as a basis for generalization. Tables 23 to 25 show similar details for 1919, 1918, and 1914, respectively.

When, however, as in Table 26, the selling expenses per \$100 of total net sales are shown in terms of the amount sold per \$1 of inventory, no such uncertainty as to direction of change from inventory-group to inventory-group in stores of different size exists. In every group the amounts grow larger as the amounts of the inventories per \$100 of total net sales increase. This does not hold alone for the combined years; it likewise characterizes the selling expense of the stores in 1919, 1918, and 1914. It is unnecessary to note in detail the size of the amounts and the nature of the changes from store-group to store-group or from inventory-group to inventory-group for each of the three years. Both the amounts and changes are graphically shown in Table 26.

The outstanding fact shown by this graphic summary, for the various groups of stores, is the similarity of the increases in the selling expense per \$100 of total net sales per amount sold per \$1 of inventory in each of the three years. From these arrays it seems safe to conclude for stores which do a given amount of business, that the selling expenses per \$100 of sales for the amount sold per \$1 of inventory decrease as the inventories

in terms of sales are reduced. This is only another way of saying that selling expense may be reduced in terms of sales by increasing the rapidity with which stock, as shown by size of inventories, is turned. Moreover, it suggests at once the soundness of the conclusion found in the Bureau's study on *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing* that the more rapid turnover of stock in the large stores is a compensating feature for the increased costs of doing business in these stores.* In addition, it connects up, in a very definite way, selling expense, sales, and the size of the inventory.





















The relationship between the amount of stock carried per \$100 of total net sales and the selling expense in terms of sales may be tested by classifying the stores according to the amount of average stock carried.† This is done in Table 27. The records of 124 stores are available for such a study. While it cost, on the average in 1919, \$10.54 to sell \$100 worth of goods, the corresponding cost for

* It is true that a comparison of inventories, on a cost basis, with sales of goods at selling price, does not suffice to measure properly stock turns. If the annual inventory at the close of the year is taken roughly to represent the average stock carried throughout the year, such a comparison serves to measure capital turn. The relationships between the annual stock and annual capital turns for 1919 are shown in Volume V of the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*, pp. 488 to 492.

† To determine the average stock carried, merchants were directed to add together the amounts of stock on hand at the close of each month and divide by 12.

TABLE 23

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 IDENTICAL STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914, COMBINED







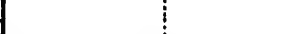











Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales											
					Amount	Per Cent.										Actual
						Graphic										
						0	20	40	60	80	100	120	140	160		
Total (Average)	Total (Average)	447	\$43,539,972	\$16,369,406	\$37.54											100.0
	Under \$5	93	4,247,831	1,930,599	45.45											121.1
	\$5 to \$12	247	26,191,756	9,702,173	37.04											99.7
	\$12 & over	107	13,100,385	4,736,634	35.99											95.9
Under \$40	Total (Average)	127	3,532,911	1,989,518	56.31											150.0
	Under \$5	43	1,136,438	690,355	57.70											153.7
	\$5 to \$12	64	1,765,845	953,401	54.56											145.3
	\$12 & over	20	570,628	335,762	58.84											156.7
\$40 to \$30	Total (Average)	165	9,360,348	4,254,795	45.46											121.1
	Under \$5	42	2,255,483	978,714	43.39											115.6
	\$5 to \$12	88	5,029,311	2,341,194	46.55											124.0
	\$12 & over	35	2,075,554	934,897	45.04											120.0
\$30 to \$130	Total (Average)	112	13,121,494	5,193,131	39.58											105.4
	Under \$5	8	795,910	261,530	32.86											87.5
	\$5 to \$12	66	7,966,900	3,260,280	40.92											109.0
	\$12 & over	38	4,359,684	1,671,321	38.34											102.1
\$130 & over	Total (Average)	43	17,585,219	4,931,962	28.05											74.7
	Under \$5	-	-	-	-											-
	\$5 to \$12	29	11,429,200	3,137,308	27.45											73.1
	\$12 & over	14	6,156,019	1,794,654	29.15											77.7
Average \$37.54																

stores with average stock under \$20 per \$100 of total net sales was \$12.49. For those with average stock of \$20 to \$40 per \$100 of total net sales it was \$10.20, while for those with average stock of \$40 and over it was \$8.91. This tendency to decrease, however, is due to the size of the store rather

than to the amount of stock carried. By expressing the selling expense in relation to sales for a given amount sold for each dollar of average stock, the \$10.54 given above drops to \$3.06. The amounts for the stores, classified by the relative size of the stock carried, increase from \$1.87, for those

TABLE 29

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales												
					Amount	Per Cent.											
						Graphic											
						0	20	40	60	80	100	120	140	160	180	Actual	
Total (Average)	Total (Average)	149	\$20,303,641	\$6,667,056	\$32.84												100.0
	Under \$6	38	2,322,762	879,810	37.88												115.3
	\$6 to \$12	80	12,418,163	4,055,317	32.66												99.5
	\$12 & over	31	5,562,696	1,731,929	31.13												94.8
Under \$40	Total (Average)	14	428,714	215,607	50.29												153.1
	Under \$6	5	140,498	81,638	58.11												176.9
	\$6 to \$12	9	288,216	133,969	46.48												141.5
	\$12 & over	-	-	-	-												
\$40 to \$80	Total (Average)	55	3,082,152	1,280,953	41.56												126.6
	Under \$6	25	1,386,374	536,642	38.71												117.9
	\$6 to \$12	23	1,319,132	593,423	44.99												137.0
	\$12 & over	7	376,646	150,888	40.06												122.0
\$80 to \$180	Total (Average)	56	6,607,089	2,366,933	35.82												109.1
	Under \$6	8	795,910	261,530	32.86												100.1
	\$6 to \$12	30	3,633,935	1,350,781	37.17												113.2
	\$12 & over	18	2,177,244	754,622	34.66												105.5
\$180 & over	Total (Average)	24	10,185,686	2,803,563	27.52												83.8
	Under \$6	-	-	-	-												-
	\$6 to \$12	18	7,176,880	1,977,144	27.55												83.9
	\$12 & over	6	3,008,806	826,419	27.47												83.6

Average \$32.84

Average \$32.84

with average stock under \$20, to \$1.46 for those with average stock of \$40 and over per \$100 of total net sales. The same tendency which was observed to characterize stores with increasing inventories likewise applies to stores with increasing average stock in relation to sales.












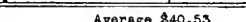
In the discussion of Table 20 it was

observed, for the combined and for the individual years, that the amounts of inventory per \$100 of total net sales decrease as the amounts of selling expense per \$100 of total net sales increase. When the stores are classified by size, as in Tables 28 to 31, this tendency is less certain.

From the foregoing discussion of

TABLE 30

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1918

















Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales											
					Amount	Per Cent.										Actual
						Graphic										
						0	20	40	60	80	100	120	140	160		
Total (Average)	Total (Average)	149	\$14,322,667	\$5,804,340	\$40.53											100.0
	Under \$6	30	1,197,535	653,961	55.07											135.9
	\$6 to \$12	86	9,197,800	3,650,841	39.69											97.9
	\$12 & over	33	3,937,332	1,499,538	38.09											94.0
Under \$40	Total (Average)	42	1,256,795	734,523	58.44											144.2
	Under \$6	16	463,643	286,299	57.44											141.7
	\$6 to \$12	20	601,649	359,296	59.72											147.3
	\$12 & over	6	191,503	108,928	56.88											140.3
\$40 to \$80	Total (Average)	60	3,501,019	1,729,460	49.40											121.9
	Under \$6	14	723,892	387,662	53.55											132.1
	\$6 to \$12	34	1,970,722	954,790	48.45											119.5
	\$12 & over	12	806,405	387,008	47.99											118.4
\$80 to \$180	Total (Average)	33	3,860,130	1,741,562	45.12											111.3
	Under \$6	-	-	-	-											-
	\$6 to \$12	23	2,749,060	1,271,499	46.25											114.1
	\$12 & over	10	1,111,070	470,063	42.31											104.4
\$180 & over	Total (Average)	14	5,704,723	1,598,795	28.03											69.2
	Under \$6	-	-	-	-											-
	\$6 to \$12	9	3,876,369	1,065,256	27.48											67.8
	\$12 & over	5	1,828,354	533,539	29.18											72.0
Average \$40.53																

the amounts of selling expense per \$100 of total net sales and per \$100 of total net sales for the amount sold for each unit of inventory, for stores of different size and having different amounts of inventory per \$100 of total net sales, it may be concluded: First, that for the combined and for

the individual years, the amounts of selling expense per \$100 of total net sales increase as the size of the stores increases. Second, that for a given store size, the amounts of selling expense per \$100 of total net sales do not show an unmistakable tendency either to increase or to decrease as

TABLE 31

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										
						0	20	40	60	80	100	120	140	Actual		
Total (Average)	Total (Average)	149	\$8,973,664	\$3,938,010	\$43.44											100.0
	Under \$6	25	737,514	336,928	53.31											123.9
	\$6 to \$12	81	4,575,293	1,996,015	43.63											100.4
	\$12 & over	43	3,660,857	1,505,167	41.12											94.7
Under \$40	Total (Average)	71	1,847,402	1,039,398	56.26											129.5
	Under \$6	22	592,297	342,419	57.81											133.1
	\$6 to \$12	35	875,980	470,136	53.67											123.5
	\$12 & over	14	379,125	226,834	59.83											137.7
\$40 to \$80	Total (Average)	50	2,777,177	1,244,382	44.81											103.2
	Under \$6	3	145,217	54,410	37.47											86.3
	\$6 to \$12	31	1,739,457	792,971	45.59											104.9
	\$12 & over	16	892,503	397,001	44.48											102.4
\$80 to \$180	Total (Average)	23	2,654,275	1,084,636	40.86											94.1
	Under \$6	-	-	-	-											-
	\$6 to \$12	13	1,583,905	638,000	40.28											92.7
	\$12 & over	10	1,070,370	446,636	41.73											96.1
\$180 & over	Total (Average)	5	1,694,810	529,604	31.25											71.9
	Under \$6	-	-	-	-											-
	\$6 to \$12	2	375,951	94,908	25.24											58.1
	\$12 & over	3	1,318,859	434,696	32.96											75.9

Average \$43.44




















the amounts of inventory per \$100 of total net sales increase. Third, that the amounts of selling expense per \$100 of total net sales for the amount sold for each \$1 of inventory increase with the size of the inventory for stores of all sizes. Fourth, that

the amounts of inventory per \$100 of total net sales decrease as the amounts of selling expense per \$100 of total net sales increase.

The practical aspects of these conclusions may be expressed as follows: If it is desired to decrease the amount

TABLE 32

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL EXPENSE, FOR 149 IDENTICAL STORES CLASSIFIED BY SIZE
AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET
SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Store- years	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense								
					Amount	Per Cent.							
						Graphic							
						0	20	40	60	80	100	120	Actual
Total (Average)	Total (Average)	447	\$9,450,641	\$4,745,829	\$50.22								100.0
	Under \$20	14	363,310	172,900	47.59								94.8
	\$20 to \$40	168	5,806,322	3,088,085	53.18								105.9
	\$40 to \$60	177	2,456,513	1,128,967	45.96								91.5
	\$60 & over	88	824,496	355,877	43.16								85.9
Under \$40	Total (Average)	127	724,495	298,231	41.16								82.0
	Under \$20	1	3,313	948	28.61								57.0
	\$20 to \$40	18	104,594	54,036	51.66								102.9
	\$40 to \$60	52	305,231	112,294	36.79								73.3
	\$60 & over	56	311,357	130,953	42.06								83.8
\$40 to \$60	Total (Average)	165	1,890,810	877,524	46.41								92.4
	Under \$20	6	78,733	29,622	37.62								74.9
	\$20 to \$40	52	567,892	283,795	48.27								96.1
	\$40 to \$60	82	923,878	426,579	46.39								92.4
	\$60 & over	25	300,307	135,528	45.13								89.9
\$60 to \$160	Total (Average)	112	2,609,487	1,445,029	51.43								102.4
	Under \$20	5	101,792	53,399	52.46								104.5
	\$20 to \$40	60	1,468,341	602,575	54.66								108.8
	\$40 to \$60	40	1,026,522	499,659	48.67								96.9
	\$60 & over	7	212,832	89,396	42.00								83.6
\$160 & over	Total (Average)	43	4,025,849	2,125,045	52.79								105.1
	Under \$20	2	179,472	88,931	49.55								98.7
	\$20 to \$40	38	3,645,495	1,947,679	53.43								106.4
	\$40 to \$60	3	200,882	88,435	44.02								87.7
	\$60 & over	-	-	-	-								-

Average \$50.22

of selling expense when expressed in terms of sales, one method by which it may be done is to reduce the amount of inventory in relation to sales. How completely such a reduction is within the power of the individual merchant it is difficult to say. The study by the Bureau of Business Research, however, leads to the conclusion that in many instances the inventories in terms of sales are unnecessarily large, as a result of unscientific purchasing or through failure to secure sales. In this connection the fifth volume of the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*, which has to do with purchases and turnover, may be consulted for a more detailed treatment of this particular phase of the subject.

Selling expense may also be expressed in terms of total operating expense. Out of every \$100 of total expense, \$50.22, on the average for the three years, for the 149 identical stores under consideration, was expended for selling as the term is used in this volume. For the stores with sales under \$40,000 the amount was \$41.16; for those with sales of \$40,000 to \$80,000 it was \$46.41; for those with sales of \$80,000 to \$180,000 it was \$51.43; and for those with sales of \$180,000 and over it was \$52.79. That is, as the stores increase in size, selling expense becomes an increasing proportion of total operating expense. For the group of smallest stores, the amount was 82.0 per cent., and for the group of largest


























stores, 105.1 per cent. of the average for all stores.

Do the amounts of selling expense per \$100 of total expense tend to become larger or smaller proportionately for these stores as the amounts of inventory in relation to sales increase? When the stores are considered as a whole, Table 32 shows that the amounts of selling expense per \$100 of total operating expense decrease as inventories in terms of sales increase. Moreover, this condition generally holds for stores when classified by size. If the amounts of selling expense per \$100 of total expense are expressed in terms of the amount sold per \$1 of inventory, the direction of change from inventory-group to inventory-group is unmistakable. While it cost \$47.59 on the average during the three years for every \$100 of total expense for stores having inventories under \$20 per \$100 of total net sales, it cost but \$8.33 when the selling expense, so expressed, is determined for the amount sold per \$1 of inventory. From this minimum the amounts rapidly increase to \$30.18 for stores with inventories of \$60 and over per \$100 of total net sales.

This condition holds not only for stores unclassified as to size, but is also true when they are classified in the customary groups according to sales. Perhaps the relations between selling expense and total expense, in stores having different amounts of inventory in relation to sales, will be understood more readily if the results of the analysis are put as follows:

TABLE 33


















TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF
TOTAL EXPENSE, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense		
					Amount	Per Cent.	
						Graphic	
0 20 40 60 80 100 120							
Total (Average)	Total (Average)	149	\$4,160,820	\$2,135,072	\$51.22		100.0
	Under \$20	7	209,266	105,711	50.52		98.6
	\$20 to \$40	83	3,117,375	1,649,518	52.91		103.3
	\$40 to \$60	51	751,639	345,965	46.03		89.9
	\$60 & over	8	90,540	33,878	37.42		73.1
Under \$40	Total (Average)	14	76,257	29,018	38.06		74.3
	Under \$20	-	-	-	-		-
	\$20 to \$40	2	14,142	6,275	44.37		86.6
	\$40 to \$60	8	47,188	15,797	33.48		65.4
	\$60 & over	4	14,907	6,946	46.60		91.0
\$40 to \$80	Total (Average)	55	536,176	233,843	43.61		85.1
	Under \$20	2	16,881	7,320	43.36		84.7
	\$20 to \$40	22	208,870	94,720	45.35		89.5
	\$40 to \$60	28	276,474	122,592	44.34		86.5
	\$60 & over	3	33,951	9,211	27.13		53.0
\$80 to \$180	Total (Average)	56	1,326,311	700,900	52.84		103.2
	Under \$20	4	67,086	34,307	51.14		99.8
	\$20 to \$40	37	860,490	465,124	54.05		105.5
	\$40 to \$60	14	357,053	183,648	51.43		100.4
	\$60 & over	1	41,682	17,721	42.51		83.0
\$180 & over	Total (Average)	24	2,230,096	1,171,411	52.53		102.6
	Under \$20	1	125,299	64,084	51.14		99.8
	\$20 to \$40	22	2,033,873	1,083,399	53.27		104.0
	\$40 to \$60	1	70,924	23,928	33.74		65.9
	\$60 & over	-	-	-	-		-

Average \$51.22

TABLE 34

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF
TOTAL EXPENSE, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF INVENTORY PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense								
					Amount	Per Cent.		Actual					
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	149	\$3,163,345	\$1,573,249	\$49.73								100.0
	Under \$20	3	81,440	32,117	39.44								79.3
	\$20 to \$40	46	1,726,776	937,441	54.23								109.0
	\$40 to \$60	60	950,082	427,462	44.99								90.5
	\$60 & over	40	403,047	176,229	43.72								87.9
Under \$40	Total (Average)	42	248,315	101,621	40.92								82.3
	Under \$20	-	-	-	-								-
	\$20 to \$40	6	32,127	17,520	54.53								109.7
	\$40 to \$60	13	81,880	27,892	34.06								68.5
	\$60 & over	23	134,308	56,209	41.85								84.2
\$40 to \$80	Total (Average)	60	719,568	331,958	46.13								92.8
	Under \$20	2	27,267	7,270	26.66								53.6
	\$20 to \$40	15	187,585	97,097	51.76								104.1
	\$40 to \$60	29	329,960	144,693	43.85								88.2
	\$60 & over	14	174,756	82,898	47.44								95.4
\$80 to \$180	Total (Average)	33	862,014	422,051	48.96								98.5
	Under \$20	-	-	-	-								-
	\$20 to \$40	14	359,747	194,559	54.08								108.7
	\$40 to \$60	16	408,284	180,370	46.63								93.8
	\$60 & over	3	93,983	37,122	39.50								79.4
\$180 & over	Total (Average)	14	1,333,448	717,619	53.82								108.2
	Under \$20	1	54,173	24,847	45.87								92.2
	\$20 to \$40	11	1,149,317	628,265	54.66								109.9
	\$40 to \$60	2	129,958	64,507	49.64								99.8
	\$60 & over	-	-	-	-								-

Average \$49.73

The selling expense per \$100 of total expense for the amount sold per \$1 of inventory is \$8.33, when the inventory per \$100 of total net sales is less than \$20. When the inventory is between \$20 and \$40 the amount is \$15.96, and when the inventory is \$60 and over the amount increases to \$30.18.

Tables 32 to 35, inclusive, show that selling expense becomes a proportionately larger part of total expense as stores increase in size. On the other hand, it is large stores that have relatively small inventories in terms of sales. Accordingly, when the stores are classified by the amounts of inventory in relation to sales, the amounts of selling expense per \$100 of total expense decrease as is shown in the total sections of these tables. The large stores seem to be operating at a disadvantage so far as this proportion is concerned. On the other hand, when the selling expense per \$100 of total expense is related to the amounts sold per \$1 of inventory, an inverse condition obtains. The selling expense of the stores having the small inventories—the large stores—rather than being relatively large is relatively small, the amount for the stores with inventories averaging less than \$20 per \$100 of total net sales being only slightly more than one-fourth as large as the amount for those stores with inventories of \$60 and over. After all, it is the amount of sales which produces profits, and which suggests, in this connection, the wisdom of low inventories.

C.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, for Stores Classified by Rates of Stock Turnover and by Size, 1919.

The records of 282 stores for the year 1919 are available for the study of the relation of selling expense to total net sales and to total expense according to the rates of stock turnover which the stores had in this year.

The annual stock turnover rates are computed by dividing the total cost of merchandise sold during the year by the average of inventories taken at cost at the close of the years 1918 and 1919. "Cost of merchandise sold" is determined by adding to the 1918 inventory the purchases, plus the freight and cartage, less returns to manufacturers, 1919, and deducting therefrom the 1919 inventory.

In Table 36 the 282 stores, without respect to size, are classified according to the annual rates of stock turnover. Nine of the stores turned their stock on an average less than once, 136 between one and two times, 100 between two and three times, 23 between three and four times, and 14, four times and more. The average number of stock turns for the stores as a whole was 2.2. This figure closely agrees with that for a somewhat larger number of stores, the stock turns of which are discussed in Volume V* of the Bureau's study on *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*.

* pp. 464 ff.

TABLE 35

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF
TOTAL EXPENSE, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF INVENTORY PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense							
					Amount	Per Cent.						Actual
						Graphic						
0 20 40 60 80 100 120												
Total (Average)	Total (Average)	149	\$2,118,476	\$1,037,508	\$48.97							100.0
	Under \$20	4	72,604	35,072	48.31							98.7
	\$20 to \$40	39	960,171	501,126	52.19							106.6
	\$40 to \$60	66	754,792	355,540	47.10							96.2
	\$60 & over	40	330,909	145,770	44.05							90.0
Under \$40	Total (Average)	71	399,943	167,592	41.90							85.6
	Under \$20	1	3,313	948	28.61							58.4
	\$20 to \$40	10	58,325	30,241	51.85							105.9
	\$40 to \$60	31	176,163	68,605	38.94							79.5
	\$60 & over	29	162,142	67,798	41.81							85.4
\$40 to \$80	Total (Average)	50	635,066	311,723	49.09							100.2
	Under \$20	2	34,585	15,032	43.46							88.7
	\$20 to \$40	15	191,437	91,978	48.05							98.1
	\$40 to \$60	25	317,444	161,294	50.81							103.8
	\$60 & over	8	91,600	43,419	47.40							96.8
\$80 to \$180	Total (Average)	23	621,162	322,178	51.87							105.9
	Under \$20	1	34,706	19,092	55.01							112.3
	\$20 to \$40	9	248,104	142,892	57.59							117.6
	\$40 to \$60	10	261,185	125,641	48.10							98.2
	\$60 & over	3	77,167	34,553	44.78							91.4
\$180 & over	Total (Average)	5	462,305	236,015	51.05							104.2
	Under \$20	-	-	-	-							-
	\$20 to \$40	5	462,305	236,015	51.05							104.2
	\$40 to \$60	-	-	-	-							-
	\$60 & over	-	-	-	-							-

Average \$48.97

The average selling expense per \$100 of total net sales for these stores is \$10.16. For those with less than one turn it is \$7.66 and from this amount as a minimum the selling expense increases for each group of stores classified by rates at which stock was turned until the stores with between three and four turns are encountered. The average for this group is \$11.47. For those having four or more turns, the corresponding amount is \$8.64. A casual inspection of this table would seem to indicate that the stores having low turnover rates are in an advantageous position so far as selling expense is concerned. This is not the case, however, when the number of turns made is taken into consideration. This latter point of view is developed in the column of the table with the caption, "Selling expense per \$100 of total net sales per stock turnover."* The average

* The method by which this unit is computed is explained on page 4, item 19.

amount of selling expense so expressed for the entire group is \$4.62. For the stores which turned their stock less than once it is \$10.21, and from this figure as a maximum the amounts rapidly decrease to \$1.73 for those stores having four or more annual turns.

These decreasing amounts of selling expense in relation to sales per stock turnover immediately suggest the saving which is possible to stores by increasing the rates at which they turn their stock. After all, the amounts of selling expense in terms of sales alone do not tell a complete story. It is only when such expense is expressed on a unit basis that the true comparative significance of the costs for stores operating under different conditions is revealed.

Table 36, moreover, needs to be considered in connection with the foregoing tables in which the size of stores is considered from the point of view of selling expense. It has been

TABLE 36
AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER,
FOR STORES CLASSIFIED BY RATES OF STOCK TURNOVER, 1919

Rates of Stock Turnover	Number of Stores	Selling Expense per \$100 of Total Net Sales							Selling Expense per \$100 of Total Net Sales per Stock Turnover								
		Amount	Per Cent.						Amount	Per Cent.							
			Graphic							Graphic							
			0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120
Total (Average)	282	\$10.16							100.0	\$4.62							100.0
Under 1	9	7.66							75.4	10.21							221.0*
1 to 2	136	9.60							94.5	6.40							139.5
2 to 3	100	10.60							104.3	4.24							91.8
3 to 4	23	11.47							112.9	3.13							67.7
4 & over	14	8.64							85.0	1.73							37.4
		Average \$10.16							Average \$4.62								

* Full length not shown

TABLE 37

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR STORES CLASSIFIED BY RATES OF
STOCK TURNOVER AND BY SIZE, 1919

Rates of Stock Turnover	Classified Total Net Sales (in '000's)	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales														
					Amount	Per Cent.													
						Graphic										Actual			
											0	20	40	60	80		100	120	140
Total (Average)	Total (Average)	262	\$35,563,014	\$3,611,668	\$10.16											100.0			
	Under \$40	33	1,012,152	60,684	6.00											59.1			
	\$40 to \$80	106	6,020,400	448,806	7.45											73.3			
	\$80 to \$180	98	11,667,072	1,185,724	10.16											100.0			
	\$180 & over	45	16,863,390	1,916,474	11.37											111.9			
Under 1	Total (Average)	9	601,109	46,063	7.66											75.4			
	Under \$40	2	64,787	4,850	7.49											73.7			
	\$40 to \$80	4	226,698	15,794	6.97											68.6			
	\$80 to \$180	3	309,624	25,419	8.21											80.8			
	\$180 & over	-	-	-	-											-			
1 to 2	Total (Average)	136	11,010,775	1,057,084	9.60											94.5			
	Under \$40	19	570,712	36,307	6.36											62.6			
	\$40 to \$80	66	3,571,041	269,786	7.55											74.3			
	\$80 to \$180	45	5,487,136	591,407	10.78											106.1			
	\$180 & over	6	1,381,386	159,684	11.55											113.7			
2 to 3	Total (Average)	100	15,987,019	1,694,631	10.60											104.3			
	Under \$40	12	376,653	19,527	5.18											51.0			
	\$40 to \$80	26	1,561,875	120,377	7.71											75.9			
	\$80 to \$180	40	4,663,355	452,493	9.70											95.5			
	\$180 & over	22	9,385,135	1,102,234	11.74											115.6			
3 to 4	Total (Average)	23	4,443,953	509,713	11.47											112.9			
	Under \$40	-	-	-	-											-			
	\$40 to \$80	8	510,510	35,529	6.96											68.5			
	\$80 to \$180	5	617,557	75,426	12.21											120.2			
	\$180 & over	10	3,315,886	398,758	12.03											118.4			
4 & over	Total (Average)	14	3,520,159	304,197	8.64											85.0			
	Under \$40	-	-	-	-											-			
	\$40 to \$80	2	150,276	7,320	4.87											47.9			
	\$80 to \$180	5	589,400	40,979	6.95											68.4			
	\$180 & over	7	2,780,483	255,898	9.20											90.6			

Average \$10.16

shown repeatedly that the selling expense of stores increases directly with their size. When the additional factor of turnover is considered, however, it is precisely the stores which are large that have relatively high turnover rates and, accordingly, it is these stores which have low selling expense per \$100 of total net sales per stock turnover. From this point of view, the large stores operate at an advantage as compared to the small stores.

The relations of size of store and rate of stock turnover to selling expense per \$100 of total net sales are developed in Table 37. The total section of this table shows for 282 stores classified by size the amounts of selling expense per \$100 of total net sales. The comparison reaffirms the conclusion that the amounts of selling expense increase as the stores increase in size.

When stores are classified by size for the different classified rates of turnover, in each group the amounts of selling expense per \$100 of total net sales are shown to increase, with one exception, with the size of the store. The consistency of the increase from store-group to store-group is indicated by the graphic parts of the table, while the average amount for each group is given in dollars and cents.

Another way of expressing the amounts of selling expense of these stores, according to size and rates of stock turnover, is in terms of total expense. This is done in Table 38. From an analysis of this table it may be concluded that the amounts of

selling expense per \$100 of total expense increase for all the stores, and for those having classified rates of stock turnover, as the amounts of sales increase. How consistent this increase is for each group of stores classified by rates of stock turnover is shown graphically by the lengths of the bars which are drawn proportional to the amounts.

The significance of Tables 36 to 38, inclusive, may be summarized as follows: First, the amounts of selling expense per \$100 of total net sales increase as the rates of stock turnover increase. This condition holds for every group except for the one having four or more turns per year. Second, the amounts of selling expense per \$100 of total net sales per stock turnover decrease as the number of stock turns increase. Third, the amounts of selling expense per \$100 of total net sales increase for each classified rate of stock turnover as the stores increase in size. Fourth, the amounts of selling expense per \$100 of total expense increase as stores increase in size for those having classified rates of stock turnover.

The relation of selling expense to sales and to stock turnover for the same 282 stores may be further illustrated by classifying the stores by size and by the amounts of inventory on hand at the close of the year 1919. This is done in Table 39. The amounts of selling expense for stores of different size and with different amounts of inventory are expressed first, in terms of total net sales, and second, in terms of total net sales per

TABLE 38

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL EXPENSE, FOR STORES CLASSIFIED BY RATES OF
STOCK TURNOVER AND BY SIZE, 1919

Rates of Stock Turnover	Classified Total Net Sales (in 000's)	Number of Stores	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense										
					Amount	Per Cent.									
						Graphic								Actual	
						0	20	40	60	80	100	120	140		
Total (Average)	Total (Average)	282	\$7,409,502	\$3,611,688	\$48.74									100.0	
	Under \$40	33	172,887	60,684	35.10									72.0	
	\$40 to \$80	106	1,073,879	448,806	41.79									85.7	
	\$80 to \$180	98	2,295,137	1,185,724	51.66									106.0	
	\$180 & over	45	3,867,599	1,916,474	49.55									101.7	
Under 1	Total (Average)	9	92,517	46,063	49.79									102.2	
	Under \$40	2	12,529	4,850	38.71									79.4	
	\$40 to \$80	4	39,626	15,794	39.86									81.8	
	\$80 to \$180	3	40,362	25,419	62.98									129.2	
	\$180 & over	-	-	-	-									-	
1 to 2	Total (Average)	136	2,200,164	1,057,084	48.05									98.6	
	Under \$40	19	97,094	36,307	37.39									76.7	
	\$40 to \$80	66	648,685	269,786	41.59									85.3	
	\$80 to \$180	45	1,147,039	591,407	51.56									105.8	
	\$180 & over	6	307,346	159,584	51.92									106.5	
2 to 3	Total (Average)	100	3,461,873	1,694,631	48.95									100.4	
	Under \$40	12	63,264	19,527	30.87									63.3	
	\$40 to \$80	26	283,383	120,377	42.48									87.2	
	\$80 to \$180	40	898,948	452,493	50.34									103.3	
	\$180 & over	22	2,216,078	1,102,234	49.74									102.1	
3 to 4	Total (Average)	23	957,575	509,713	53.23									109.2	
	Under \$40	-	-	-	-									-	
	\$40 to \$80	8	85,304	35,529	41.65									85.5	
	\$80 to \$180	5	121,706	75,426	61.97									127.1	
	\$180 & over	10	750,565	398,758	53.13									109.0	
4 & over	Total (Average)	14	697,573	304,197	43.61									89.5	
	Under \$40	-	-	-	-									-	
	\$40 to \$80	2	16,861	7,320	43.36									89.0	
	\$80 to \$180	5	87,082	40,979	47.06									96.6	
	\$180 & over	7	593,610	255,898	43.11									88.4	

Average \$48.74

stock turnover. Table 39 merits careful study. It shows: First, that the amounts of selling expense per \$100 of total net sales increase as stores increase in size. Second, that these amounts for stores of a given size, on the whole, increase as the size of the inventory per \$100 of total net sales increases. Third, that the amounts of selling expense per \$100 of total net sales per stock turnover for stores of different size increase according to the size of store, for those stores with sales of less than

\$180,000, while for those with sales in excess of this amount, they decrease. Fourth, for each group of stores, when classified by size, the selling expenses per \$100 of total net sales per stock turnover increase as the amounts of inventory per \$100 of total net sales increase.

Certain practical conclusions seem to follow from the foregoing summary statement. To illustrate: There are 106 stores with annual sales between \$40,000 and \$80,000. For these stores it cost, on the average, \$7.45 in selling

TABLE 39

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE OF STORE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Selling Expense per \$100 of Total Net Sales						Selling Expense per \$100 of Total Net Sales per Stock Turnover													
			Amount	Per Cent.						Amount	Per Cent.											
				Graphic							Graphic											
				0	20	40	60	80	100	120	0	20	40	60	80	100	120	140	160	180	200	
Total (Average)	Total (Average)	282	\$10.16							100.0	\$4.62									100.0		
	Under \$20	17	9.03							88.9	2.05									44.4		
	\$20 to \$40	153	10.79							106.2	4.50									97.4		
	\$40 & over	112	8.84							87.0	6.31									136.6		
Under \$40	Total (Average)	33	6.00							59.1	4.00									86.6		
	Under \$20	-	-							-	-									-		
	\$20 to \$40	10	5.72							56.3	2.72									56.9		
	\$40 & over	23	6.13							60.3	4.72									102.2		
\$40 to \$80	Total (Average)	106	7.45							73.3	4.14									89.6		
	Under \$20	3	5.85							57.6	1.39									30.1		
	\$20 to \$40	45	7.13							70.2	3.24									70.1		
	\$40 & over	58	7.84							77.2	5.23									113.2		
\$80 to \$160	Total (Average)	98	10.16							100.0	5.35									115.8		
	Under \$20	5	8.82							86.8	2.10									45.5		
	\$20 to \$40	63	10.29							101.2	4.67									101.1		
	\$40 & over	30	10.10							99.4	6.73									145.7		
\$180 & over	Total (Average)	45	11.36							111.8	4.06									87.9		
	Under \$20	9	9.27							91.2	2.06									44.6		
	\$20 to \$40	35	11.93							117.4	4.59									89.4		
	\$40 & over	1	10.32							101.6	8.60									156.1		
			Average \$10.16						Average \$4.62													

expense to sell \$100 worth of goods. However, when the amount of selling expense in terms of sales is calculated per stock turnover, this amount becomes \$4.14, or is reduced 44 per cent. For the three stores in this group the inventories of which, at the close of 1919, were less than \$20 per \$100 of total net sales, the amount of selling expense for each \$100 worth of goods sold is \$5.85. For each turnover, however, the selling

expense is \$1.39. The amounts of selling expense in terms of sales increase as the size of the inventories per \$100 of total net sales increases. They increase much more rapidly, however, with the size of the inventories when they are measured in terms of a unit of stock turn. The minimum amount in terms of sales is \$5.85; the maximum is \$7.84. In terms of stock turnover, the minimum is \$1.39, and the maximum, \$5.23.

TABLE 40

COST OF MERCHANDISE SOLD, AVERAGE INVENTORY, AND AVERAGE ANNUAL STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Cost of Merchandise Sold	Average Inventory, 1918 & 1919	Average Annual Stock Turnover														
					Rate	Per Cent.													
						Graphic													Actual
					0	20	40	60	80	100	120	140	160	180	200	220			
Total (Average)	Total (Average)	282	\$23,853,256	\$10,940,487	2.2														100.0
	Under \$20	17	2,782,262	625,294	4.4														200.0
	\$20 to \$40	153	15,790,617	6,638,672	2.4														109.1
	\$40 & over	112	5,280,379	3,676,521	1.4														63.6
Under \$40	Total (Average)	33	713,166	472,946	1.5														68.2
	Under \$20	-	-	-	-														-
	\$20 to \$40	10	224,546	107,173	2.1														95.5
	\$40 & over	23	488,620	365,773	1.3														59.1
\$40 to \$80	Total (Average)	106	4,198,968	2,303,022	1.8														81.8
	Under \$20	3	173,553	40,899	4.2														190.9
	\$20 to \$40	45	1,851,829	853,623	2.2														100.0
	\$40 & over	58	2,163,586	1,489,508	1.5														68.2
\$80 to \$120	Total (Average)	98	7,827,391	4,056,088	1.9														86.4
	Under \$20	5	357,666	89,169	4.2														190.9
	\$20 to \$40	63	4,967,525	2,259,616	2.2														100.0
	\$40 & over	30	2,492,700	1,708,303	1.5														68.2
\$120 & over	Total (Average)	45	11,105,233	4,028,424	2.6														127.3
	Under \$20	9	2,241,043	496,227	4.5														204.5
	\$20 to \$40	35	8,746,717	3,413,260	2.6														118.2
	\$40 & over	1	135,473	113,937	1.2														54.5

Average 2.2

Large inventories relative to sales are clearly a disadvantage when considered from the point of view of selling expense in relation to sales and in relation to sales for each stock turnover. Strenuous measures should be taken by merchants to reduce their

inventories in relation to their sales.

Tables 40 and 41 contain, respectively, the average annual stock turns for the stores shown in Table 39, and the number of stores having stock turns above and below the averages for the respective groups. These

TABLE 41

NUMBER OF STORES HAVING SPECIFIED RATES OF STOCK TURNOVER, CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Average Annual Stock Turnover	Number of Stores Having Specified Rates of Stock Turnover					
			Total	Under 1	1 to 2	2 to 3	3 to 4	4 & over
Total (Average)	Total (Average)	2.2	282	9	136	100	23	14
	Under \$20	4.4	17	-	-	-	6	11
	\$20 to \$40	2.4	153	2	42	90	16	3
	\$40 & over	1.4	112	7	94	10	1	-
Under \$40	Total (Average)	1.5	33	2	19	12	-	-
	Under \$20	-	-	-	-	-	-	-
	\$20 to \$40	2.1	10	-	2	8	-	-
	\$40 & over	1.3	23	2	17	4	-	-
\$40 to \$80	Total (Average)	1.8	106	4	65	26	8	2
	Under \$20	4.2	3	-	-	-	1	2
	\$20 to \$40	2.2	45	1	17	21	6	-
	\$40 & over	1.5	58	3	49	5	1	-
\$80 to \$180	Total (Average)	1.9	98	3	45	40	5	5
	Under \$20	4.2	5	-	-	-	2	3
	\$20 to \$40	2.2	63	1	18	39	3	2
	\$40 & over	1.5	30	2	27	1	-	-
\$180 & over	Total (Average)	2.8	45	-	6	22	10	7
	Under \$20	4.5	9	-	-	-	3	6
	\$20 to \$40	2.6	35	-	5	22	7	1
	\$40 & over	1.2	1	-	1	-	-	-

tables are of interest in themselves, but are included primarily at this place to supplement Table 39 and to show how nearly the respective averages, used in calculating the selling expense per \$100 of total net sales for each stock turnover, are characteristic of the conditions in the various stores under consideration.

Table 42 is identical with Table 39 except in the order in which the data are classified. In this table the amounts of selling expense are shown

both in terms of sales and in terms of sales per stock turn for stores with different amounts of inventory. For all the stores unclassified by inventories, selling expenses increase as the stores increase in size. This condition holds, moreover, when the stores are classified by the amounts of inventory on hand at the close of 1919. The nature of the changes in the amounts from group to group is shown in the graphic part of the table.

TABLE 42

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER,
FOR STORES CLASSIFIED BY AMOUNT OF INVENTORY PER \$100 OF
TOTAL NET SALES AND BY SIZE, 1919

Amount of Inventory per \$100 of Total Net Sales	Classified Total Net Sales (in 000's)	Number of Stores	Selling Expense per \$100 of Total Net Sales					Selling Expense per \$100 of Total Net Sales per Stock Turnover																						
			Amount	Per Cent.				Amount	Per Cent.																					
				Graphic					Graphic																					
				0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120	140	160	180	200	Actual							
Total (Average)	Total (Average)	282	\$10.16						100.0	\$4.62											100.0									
	Under \$40	33	6.00						59.1	4.00											86.5									
	\$40 to \$80	106	7.45						73.3	4.14											89.6									
	\$80 to \$180	98	10.16						100.0	5.55											115.8									
	\$180 & over	45	11.36						111.8	4.06											87.9									
Under \$20	Total (Average)	17	9.03						88.9	2.05											44.4									
	Under \$40	-	-						-	-											-									
	\$40 to \$80	3	5.85						57.6	1.39											30.1									
	\$80 to \$180	5	8.82						86.8	2.10											45.5									
	\$180 & over	9	9.27						91.2	2.06											44.6									
\$20 to \$40	Total (Average)	153	10.79						106.2	4.50											97.4									
	Under \$40	10	5.72						56.3	2.72											58.9									
	\$40 to \$80	45	7.13						70.2	3.24											70.1									
	\$80 to \$180	63	10.28						101.2	4.67											101.1									
	\$180 & over	35	11.93						117.4	4.59											99.4									
\$40 & over	Total (Average)	112	8.84						87.0	6.31											136.6									
	Under \$40	23	6.13						60.3	4.72											102.2									
	\$40 to \$80	58	7.84						77.2	5.23											113.2									
	\$80 to \$180	30	10.10						99.4	6.73											145.7									
	\$180 & over	1	10.33						101.6	8.60											186.1									
Average \$10.16																					Average \$4.62									

D.—Summary.

- (1). The amounts of selling expense per \$100 of total net sales and also per \$100 of total net sales per amount sold per \$1 of inventory decreased between 1914 and 1918, and between 1918 and 1919. This is true for all stores and also for the stores classified by size and by amount of inventory per \$100 of total net sales.
- (2). Inventories in terms of sales decreased between 1914 and 1918, and 1918 and 1919.
- (3). As the inventories in terms of sales increase, the amounts of selling expense per \$100 of total net sales on the whole decrease. For stores of a given size, they increase. In terms of the amount sold per \$1 of inventory and per stock turnover the amounts increase for all stores and also for stores of a given size.
- (4). As the size of the stores increases, the selling expenses per \$100 of total net sales per amount sold per \$1 of inventory generally increase for stores with sales under \$180,000 and then decrease for the stores with sales of \$180,000 and over.
- (5). The proportions of total expense attributable to selling increase as the size of the stores increases, and decrease

as the inventories in terms of sales increase.

- (6). For stores with a given rate of stock turnover, the amounts of selling expense, in terms of sales alone or of sales and stock turnover, increase as the stores increase in size.
- (7). For stores with a given rate of stock turnover, the amounts of selling expense in terms of total expense, alone or combined with the rate of stock turnover, increase as stores increase in size.
- (8). The amounts of selling expense per \$100 of total net sales increase, and the amounts per \$100 of total net sales per stock turnover decrease as the rates of stock turnover increase.

3.—YEARLY AMOUNTS OF SELLING EXPENSE IN RELATION TO THE AMOUNTS OF GOODS SOLD PER FULL-TIME SALES-PERSON AND TO THE METHODS BY WHICH SALESMEN ARE PAID, FOR STORES CLASSIFIED BY YEARS, BY SIZE, AND BY LOCATION.

Sales of goods in clothing stores are determined in part by the personnel of the sales force, and the selling expense in its relation to sales is controlled largely by the number of salesmen employed and the amount of sales which they make in a given length of time. In order to get some measure of the variations in selling expense for stores under different

conditions of operation and different methods of paying salesmen, it has been thought of interest to study a group of stores in detail. In the present section the analysis of selling expense is directed toward this end.

Two units have been used to measure amounts of selling expense. First, they are expressed in terms of sales, and second, in terms of total expense. Both of these units, however, are now refined so as to secure the amounts in terms of \$1,000 of sales per full-time sales-person and in terms of the rapidity with which stock is turned during a year.*

(1)—YEARLY AMOUNTS OF SELLING
EXPENSE IN RELATION TO
AMOUNTS OF GOODS SOLD PER
FULL-TIME SALES-PERSON.

*A.—Yearly Amounts of Selling
Expense per \$100 of Total Net
Sales and per \$100 of Total
Expense, 1919, 1918, and 1914.*

The records of 146 identical stores for the years 1919, 1918, and 1914 are available for a study of the amounts of selling expense in stores in relation to the amount sold per full-time sales-person. Subsequent analysis—pages 89 to 111—shows the amounts of selling expense expressed in terms of both sales and total expense for stores classified by size and by the amounts sold per full-time sales-person. The present discussion is concerned with the relation between

selling expense and sales measured in both units for the 146 stores for the three years.

Table 43 shows for the 438 store-years, 1914, 1918, and 1919, combined, that it cost \$10.76 to sell \$100 worth of goods. In 1919 the corresponding amount was \$10.39; in 1918 it was \$10.94; and in 1914, \$11.35. That is, the amounts decreased between 1914 and 1918, and 1918 and 1919, the percentage of difference between 1914 and 1918 being 3.6, and between 1918 and 1919, 5.0. When the amounts of selling expense per \$100 of total net sales are shown for each \$1,000 sold per full-time sales-person they are reduced, but follow the same general direction from year to year. In 1919, the average amount was \$0.51, in 1918 it was \$0.70, and in 1914, \$1.00. That is, the amounts decreased between 1914 and 1918, and 1918 and 1919, the percentage of change from 1914 to 1918 being 30.0, and between 1918 and 1919, 27.1.

The occasion for the decrease from year to year is shown in Table 44, wherein the amounts sold per full-time sales-person are given. For the combined years the average amount so sold was \$16,149. In 1919 it was \$20,437, in 1918 it was \$15,613, and in 1914, \$11,345. That is, between 1914 and 1918 the amounts increased by 37.6, and between 1918 and 1919 by 30.9 per cent. The stores have much lower average amounts of selling expense in 1919 than in the other years, when they are expressed in the activities of their full-time sales-people, than when they are expressed

* The methods by which these units are computed are explained on page 4, items 19, 20, 22, and 23.

solely in the amount of their total sales.

In Table 3 attention was called to the fact that for the 154 stores considered, the amounts of selling expense per \$100 of total expense increased between 1914 and 1918, and between 1918 and 1919, the percentage of change being 1.6 per cent. between 1914 and 1918, and 4.5 per

cent. between 1914 and 1919. For the 146 stores now under consideration, as shown in Table 45, the actual amounts closely correspond to those for 154 stores, the direction of change, from year to year, however, being somewhat different. In 1914, \$50.18 out of every \$100 of total expense was due to selling. In 1918 the amount was \$49.39, and in 1919, \$50.90.

TABLE 43

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919, 1918, AND 1914

Years	Amount of Sales per Full-time Sales-person (in 000's)	Number of Store-years	Selling Expense per \$100 of Total Net Sales							Selling Expense per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person																	
			Amount	Per Cent.						Amount	Per Cent.															Actual	
				Graphic							Graphic																
				0	20	40	60	80	100	120	0	20	40	60	80	100	120	140	160	180	200	Actual					
Total (Average)	Total (Average)	458	\$10.76							100.0	\$0.67																100.0
	Under \$12	151	11.19							104.0	1.19																177.6
	\$12 to \$16	107	10.97							102.0	0.80																119.4
	\$16 to \$24	118	11.22							104.3	0.59																88.1
	\$24 to \$32	39	10.05							93.4	0.37																55.2
	\$32 & over	23	8.34							77.5	0.22																32.8
1919	Total (Average)	146	10.39							96.6	0.51																76.1
	Under \$12	15	9.21							85.6	0.95																141.8
	\$12 to \$16	30	10.13							94.1	0.72																107.5
	\$16 to \$24	61	11.34							105.4	0.60																89.6
	\$24 to \$32	21	9.99							92.8	0.36																53.7
	\$32 & over	19	8.62							80.1	0.23																34.3
1918	Total (Average)	146	10.94							101.7	0.70																104.5
	Under \$12	50	10.24							95.2	1.01																150.7
	\$12 to \$16	42	11.26							104.6	0.84																125.4
	\$16 to \$24	37	11.37							105.7	0.57																85.1
	\$24 to \$32	14	10.11							94.0	0.37																55.2
	\$32 & over	3	5.58							51.9	0.15																22.4
1914	Total (Average)	146	11.35							105.5	1.00																149.3
	Under \$12	86	12.02							111.7	1.34																200.0
	\$12 to \$16	35	11.19							104.0	0.80																119.4
	\$16 to \$24	20	9.81							91.2	0.53																79.1
	\$24 to \$32	4	11.39							105.9	0.41																61.2
	\$32 & over	1	2.86							26.5	0.08																11.9
			Average \$10.76							Average \$0.67																	












That is, between 1914 and 1918 the amounts slightly decreased and between 1918 and 1919 slightly increased. The differences in actual amounts and the direction of the changes from year to year are, of course, due to the fact that stores differing in number and identity are considered.

When the amounts of selling ex-

pense per \$100 of total expense are shown for every \$1,000 sold per full-time sales-person, as in Table 45, the \$50.18 for 1914 becomes \$4.42, the \$49.39 for 1918 becomes \$3.16, and the \$50.90 for 1919 becomes \$2.49. That is, between 1914 and 1918, and between 1918 and 1919 the amounts decreased, the percentages of change being, respectively, 28.5 and 21.2.

TABLE 44

TOTAL NET SALES, NUMBER OF FULL-TIME SALES-PEOPLE, AND AMOUNT OF SALES PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Selling Expense per \$100 of Total Net Sales	Number of Store-years	Total Net Sales	Number of Full-time Sales-people	Net Sales per Full-time Sales-person									
					Amount	Per Cent.								Actual
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	438	\$42,655,162	2,641.4	\$16,149									100.0
	Under \$6	95	4,473,628	278.3	16,075									99.5
	\$6 to \$12	241	25,752,733	1,509.8	17,057									105.6
	\$12 & over	102	12,428,801	853.3	14,566									90.2
1919	Total (Average)	146	19,931,753	975.3	20,437									126.6
	Under \$6	39	2,447,315	127.6	19,180									118.8
	\$6 to \$12	78	12,206,633	560.6	21,774									134.8
	\$12 & over	29	5,277,805	287.1	18,383									113.8
1918	Total (Average)	146	13,981,287	895.5	15,613									96.7
	Under \$6	31	1,266,945	86.6	14,630									90.6
	\$6 to \$12	83	8,994,157	547.5	16,428									101.7
	\$12 & over	32	3,720,185	261.4	14,232									88.1
1914	Total (Average)	146	8,742,122	770.6	11,345									70.3
	Under \$6	25	759,368	64.1	11,847									73.4
	\$6 to \$12	80	4,551,943	401.7	11,332									70.2
	\$12 & over	41	3,430,811	304.8	11,256									69.7

Average \$16,149

These decreases from year to year, like those shown immediately above, where the unit of interpretation is sales, are to be attributed largely to the increased sales per full-time sales-person.

Without repeating the conclusions reached on page 52, concerning the amounts of selling expense, first in terms of sales, and second in terms of total expense for the different years and the change from year to year, all of which are confirmed by the figures shown in Tables 43 and 45, it may be concluded from these tables that selling expense per \$100 of total net sales and per \$100 of total expense for each \$1,000 of goods sold per full-time sales-person was less in 1918 than in 1914 and less in 1919 than in either of the other years. That is, in spite of the increased selling and total operating expenses from year to year, increased sales per salesman sufficed to reduce the amount of selling expense both in terms of sales and in terms of total expense.

B.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, for Stores Classified by Size, 1919, 1918, and 1914.

Two measures of the amounts of selling expense per \$100 of total net sales and per \$100 of total expense are available for stores classified by size and by amounts sold per full-time sales-person. The first is in terms of stock turnover, and the second, in terms of \$1,000 sold per full-time sales-person. The present discussion

has to do with the amounts in terms of sales per stock turnover for stores for 1919.

The analysis above, page 42, and in various other places throughout the discussion, has shown that the amounts of selling expense per \$100 of total net sales increase as stores increase in size. Moreover, the discussion in Volume I * of the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*, shows that the amounts of sales per full-time sales-person are larger in the large than in the small stores. Accordingly, when stores are classified by size and by the amount of sales per full-time sales-person, as in Table 46, it might be expected that the stores within each sales-group which had large amounts of sales per full-time sales-person would have large selling expense per \$100 of total net sales. This result, however, is not brought out in the table. The reason for this may be explained as follows: Not all large stores had large amounts, nor all small stores small amounts sold per full-time sales-person. Moreover, not all stores having small amounts of sales per full-time sales-person had relatively large selling expense, nor did all stores which had relatively large sales per full-time sales-person have relatively small amounts of selling expense per \$100 of sales. The size of the store alone would tend to cause selling expense to increase, while higher sales per sales-person would tend to reduce the amounts

* Page 92.

TABLE 45

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED
BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON,
1919, 1918, AND 1914

Years	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores-Years	Selling Expense per \$100 of Total Expense						Selling Expense per \$100 of Total Expense per \$1,000 of Sales per Full-time Sales-person															
			Amount	Per Cent.						Amount	Per Cent.													
				Graphic							Graphic													
				0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120	140	160	180	200	Actual	
Total (Average)	Total (Average)	426	\$50.23							100.0	53.11											100.0		
	Under \$12	151	\$1.06							101.7	5.44											174.9		
	\$12 to \$16	107	\$0.98							101.3	3.71											119.3		
	\$16 to \$24	118	\$1.81							103.1	2.70											86.8		
	\$24 to \$32	39	\$7.45							94.5	1.73											55.6		
	\$32 & over	23	\$3.11							85.8	1.16											37.3		
1919	Total (Average)	146	\$0.90							101.8	2.49											80.1		
	Under \$12	15	\$5.39							90.4	4.56											149.8		
	\$12 to \$16	30	\$6.29							112.1	4.00											126.3		
	\$16 to \$24	61	\$3.40							106.3	2.84											91.3		
	\$24 to \$32	21	\$9.06							97.7	1.78											57.2		
	\$32 & over	19	\$3.60							86.8	1.18											37.9		
1918	Total (Average)	146	\$9.39							90.3	3.10											101.6		
	Under \$12	50	\$9.38							90.3	4.90											156.3		
	\$12 to \$16	42	\$9.97							99.5	3.73											119.9		
	\$16 to \$24	37	\$0.77							101.1	2.56											82.3		
	\$24 to \$32	14	\$2.12							65.8	1.58											50.6		
	\$32 & over	3	\$8.24							75.1	1.00											32.8		
1914	Total (Average)	146	\$0.16							99.9	4.57											162.1		
	Under \$12	66	\$2.74							105.0	5.98											189.1		
	\$12 to \$16	35	\$8.77							97.1	3.47											111.6		
	\$16 to \$24	20	\$6.04							91.7	2.47											79.4		
	\$24 to \$32	4	\$2.95							65.5	1.56											30.7		
	\$32 & over	1	\$0.13							40.1	0.52											17.0		
			Average \$50.23											Average 53.11										

Average \$50.23

Average 53.11

when they are expressed in sales. These different tendencies do not wholly balance each other.

In so far as it is possible to generalize with respect to the amounts of selling expense for stores with different amounts sold per full-time sales-person, it may be said that in terms of sales they vary inversely with the amounts sold per full-time sales-person. That is, the reduction

in selling expense, accompanying increased sales on the part of salesmen in the larger stores, tends more than to balance the higher selling expense associated with these stores.

When the amounts of selling expense are expressed in terms of net sales per stock turnover, however, as in the column of Table 46 bearing this caption, the direction of change in the amounts for stores having different

TABLE 46

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER,
FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES
PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling Expense per \$100 of Total Net Sales										Selling Expense per \$100 of Total Net Sales per Stock Turnover													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	Actual					
Total (Average)	Total (Average)	289	\$10.19											100.0	\$4.63											100.0
	Under \$12	30	9.73											95.5	5.72											123.5
	\$12 to \$16	56	9.71											95.3	4.62											99.8
	\$16 to \$24	103	10.89											106.9	5.45											117.7
	\$24 to \$32	44	9.59											94.1	4.00											86.4
	\$32 & over	56	9.88											97.0	3.53											76.2
Under \$40	Total (Average)	31	5.68											57.7	3.92											84.7
	Under \$12	9	7.26											71.2	5.19											112.1
	\$12 to \$16	4	5.59											54.9	3.11											67.2
	\$16 to \$24	7	6.43											63.1	4.95											106.9
	\$24 to \$32	7	4.23											41.5	2.49											53.6
	\$32 & over	4	5.31											52.1	3.32											71.7
\$40 to \$80	Total (Average)	103	7.50											73.6	4.17											90.1
	Under \$12	16	9.04											88.7	6.03											130.2
	\$12 to \$16	34	8.62											84.6	5.07											109.5
	\$16 to \$24	31	6.56											64.6	3.66											79.0
	\$24 to \$32	9	7.18											70.5	3.42											73.9
	\$32 & over	13	5.06											49.7	2.66											57.5
\$80 to \$120	Total (Average)	92	10.04											96.5	5.28											114.0
	Under \$12	4	10.86											106.6	5.72											123.5
	\$12 to \$16	15	11.29											110.8	5.65											122.0
	\$16 to \$24	50	9.48											93.0	5.27											113.8
	\$24 to \$32	14	8.96											87.8	4.27											92.2
	\$32 & over	9	12.55											123.2	4.48											96.8
\$120 & over	Total (Average)	43	11.54											113.2	4.27											92.2
	Under \$12	1	11.68											114.6	4.67											100.9
	\$12 to \$16	3	9.63											96.5	3.39											73.2
	\$16 to \$24	15	13.91											136.5	5.35											115.6
	\$24 to \$32	14	10.88											100.9	3.95											85.3
	\$32 & over	10	10.13											99.4	3.17											68.5
			Average \$10.19										Average \$4.63													

sales per full-time sales-person is not so uncertain. Both turnover rates and selling expense in terms of sales are relatively high in the large stores. When the amounts of selling expense are expressed per \$100 of sales per turnover, they decrease as the amounts sold per full-time sales-person increase. That is, the more rapid turns associated with large sales per sales-person convert the questionable direction of change from store-group to store-group into one which is absolutely certain.

The regularity of the change in the amounts of selling expense per \$100 of total net sales and per \$100 of sales per turnover for the stores, when classified by size and by the amounts sold per full-time sales-person, is shown graphically in Table 46. The detailed analysis of the figures points the following conclusions: First, the amounts of selling expense per \$100 of total net sales increase as the stores increase in size. Second, amounts of selling expense per \$100 of total net sales for stores of a given size roughly decrease as the amounts sold per full-time sales-person increase. Third, the amounts of selling expense per \$100 of total net sales per stock turnover increase as stores increase in size for stores with sales under \$180,000. This condition is also true for stores of different size, but with the same amounts of sales per full-time sales-person. Fourth, the amounts of selling expense per \$100 of total net sales per stock turnover decrease as the amounts of sales per full-time sales-person increase. This condition holds

not only for stores as a whole, but also when they are classified by size.

The practical significance of these conclusions to merchants is that the amounts of selling expense in terms of sales and in terms of sales per stock turnover may be decreased by increasing the amounts sold per full-time sales-person. The latter condition may result from stimulating the sales of a given force or from securing the same sales with a diminished force.

The foregoing discussion refers to the amounts of selling expense for 269 stores with different amounts of sales per full-time sales-person, for the year 1919, the measures of selling expense being given first in terms of sales, and second in terms of the number of stock turns per year.

Another method of analyzing the selling expenses for these stores for 1919 is to express them in terms of sales per \$1,000 of goods sold for each full-time sales-person. This is done in Table 47. In this year for the 269 stores it cost on the average \$0.50 to sell \$100 worth of goods for each \$1,000 sold per full-time sales-person. For the stores with sales under \$40,000, the corresponding amount was \$0.35; for those with sales of \$40,000 to \$80,000 it was \$0.45; for those with sales of \$80,000 to \$180,000 it was \$0.52; and for those with sales of \$180,000 and over it was \$0.50. That is, the amounts tend generally to increase as the stores increase in size. It will be recalled that amounts of selling expense in terms of sales increase as stores increase in size. The amounts sold per full-time sales-

TABLE 47

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE OF STORE
AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling Expense per \$100 of Total Net Sales					Selling Expense per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person															
			Amount	Per Cent.					Amount	Per Cent.													
				Graphic						Graphic								Actual					
			0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	160	180	200	Actual
Total (Average)	Total (Average)	269	\$10.19							100.0	\$0.50												100.0
	Under \$12	30	9.73							95.5	0.95												130.0
	\$12 to \$16	56	9.71							95.3	0.69												138.0
	\$16 to \$24	103	10.89							106.9	0.57												114.0
	\$24 to \$32	44	9.59							94.1	0.35												70.0
	\$32 & over	36	9.88							97.0	0.24												48.0
Under \$40	Total (Average)	31	5.89							57.7	0.35												70.0
	Under \$12	9	7.26							71.2	0.73												146.0
	\$12 to \$16	4	5.59							54.9	0.38												76.0
	\$16 to \$24	7	6.43							63.1	0.32												64.0
	\$24 to \$32	7	4.23							41.5	0.15												30.0
	\$32 & over	4	5.31							52.1	0.15												30.0
\$40 to \$80	Total (Average)	103	7.50							73.6	0.45												90.0
	Under \$12	16	9.04							88.7	0.90												180.0
	\$12 to \$16	34	8.62							84.6	0.60												120.0
	\$16 to \$24	31	6.58							64.6	0.35												70.0
	\$24 to \$32	9	7.18							70.5	0.27												54.0
	\$32 & over	13	5.06							49.7	0.12												24.0
\$80 to \$180	Total (Average)	92	10.04							98.5	0.52												104.0
	Under \$12	4	10.86							106.6	1.05												210.0*
	\$12 to \$16	15	11.29							110.8	0.83												166.0
	\$16 to \$24	50	9.48							93.0	0.50												100.0
	\$24 to \$32	14	8.96							87.9	0.33												66.0
	\$32 & over	9	12.55							123.2	0.33												66.0
\$180 & over	Total (Average)	43	11.54							113.2	0.50												100.0
	Under \$12	1	11.68							114.6	1.12												224.0*
	\$12 to \$16	3	9.83							96.5	0.68												136.0
	\$16 to \$24	15	13.91							136.5	0.73												146.0
	\$24 to \$32	14	10.28							100.9	0.37												74.0
	\$32 & over	10	10.13							99.4	0.24												48.0

Average \$10.19

Average \$0.50

* Full length not shown

person likewise tend to increase as stores increase in size. However, when the amounts of selling expense are expressed in terms of sales for each \$1,000 of goods sold per full-time sales-person, inasmuch as they in-

crease, it follows that the amounts of selling expense for stores of different size increase more rapidly in terms of sales than do the amounts sold per full-time sales-person. For the year 1919, the actual amounts sold by each

person are given in tabular and graphic form in Table 48.

We are, however, not concerned at this place with store-size alone. Equally interesting details of Table 47 are the amounts of selling expense in terms of sales alone and per \$1,000 sold per full-time sales-person for stores of essentially the same size, but with different amounts sold per full-time sales-person. The stores are divided as usual into four groups. Within each one the amounts of selling expense rapidly decrease per \$100 of sales per \$1,000 sold per full-time sales-person as the amounts sold per salesman increase. For all the stores, the average amount of selling expense expressed in this way, for stores in which each full-time sales-person sold less than \$12,000 per year, was \$0.95. From this as a maximum, the amounts of selling expense decrease to \$0.24 for the stores having sales per full-time sales-person of \$32,000 and over. It is unnecessary to point out in detail the rapidity of the decline in the amounts for the stores when classified by size. The part of the table bearing the caption, "Selling Expense per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person," shows this in a graphic manner.
















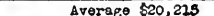
The average amounts sold per full-time sales-person for the 269 stores classified by size and by the amounts of selling expense per \$100 of total net sales are shown in Table 48. For each of the different groups of stores classified by size, the amounts sold per full-time sales-person decrease as the amounts of selling expense per

\$100 of total net sales increase. That is, the relationship between selling expense in terms of sales and amount sold per full-time sales-person is inverse.

The amounts sold per full-time sales-person, as shown in Table 48, are, of course, averages. It will be of interest briefly to indicate, for a single group of stores, how nearly these averages characterize the more detailed conditions. The 103 stores with annual sales in 1919 of \$40,000 to \$80,000 may be chosen for illustrative purposes. The average amount sold per salesman in the stores having selling expense less than \$6 per \$100 of total net sales was \$19,516. However, in 32 per cent. of these stores, the amounts sold per salesman were less than \$16,000 and in 68 per cent. in excess of this amount. For those stores having selling expense of \$6 to \$12 per \$100 of total net sales, the average amount was \$15,788. In 55 per cent. of the stores the amounts sold per full-time sales-person were less than \$16,000 and in 45 per cent. in excess of this amount. For stores with selling expense of \$12 and over per \$100 of total net sales the average amount was \$13,122. In 82 per cent. of the stores, however, the amounts sold per full-time sales-person were less than \$16,000 and in 18 per cent. of the stores, \$16,000 and over. The inverse relationship between the average amount of selling expense per \$100 of total net sales and the amount sold per full-time sales-person shown in Table 48 also holds for the amounts of sales in detail.

TABLE 48

TOTAL NET SALES, NUMBER OF FULL-TIME SALES-PEOPLE, AND AMOUNT OF SALES PER FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Number of Full-time Sales-people	Net Sales per Full-time Sales-person							
					Amount	Per Cent.						Actual
						Graphic						
						0	20	40	60	80	100	
Total (Average)	Total (Average)	269	\$33,637,842	1,666.5	\$20,215							100.0
	Under \$6	68	3,842,272	195.0	19,704							97.5
	\$6 to \$12	149	20,385,179	1,001.3	20,359							100.7
	\$12 & over	52	9,460,391	470.2	20,120							99.5
Under \$40	Total (Average)	31	963,213	56.9	16,959							83.9
	Under \$6	16	493,027	23.8	20,715							102.5
	\$6 to \$12	14	446,275	30.6	14,584							72.1
	\$12 & over	1	23,911	2.4	9,963							49.3
\$40 to \$80	Total (Average)	103	5,872,443	353.3	16,622							82.2
	Under \$6	41	2,257,946	115.7	19,516							96.5
	\$6 to \$12	51	2,941,336	186.3	15,788							78.1
	\$12 & over	11	673,161	51.3	13,122							64.9
\$80 to \$180	Total (Average)	92	10,840,797	564.2	19,214							95.0
	Under \$6	11	1,091,299	55.5	19,663							97.3
	\$6 to \$12	56	6,752,827	344.3	19,613							97.0
	\$12 & over	25	2,996,671	164.4	18,228							90.2
\$180 & over	Total (Average)	43	16,011,399	692.2	23,131							114.4
	Under \$6	-	-	-	-							-
	\$6 to \$12	28	10,244,741	440.1	23,278							115.2
	\$12 & over	15	5,766,648	252.1	22,874							113.2
Average \$20,215												

The discussion immediately above refers to the year 1919 alone. In view of the increase in the amounts of sales per full-time sales-person and the decrease in selling expense per \$100 of total net sales from year to year, it has been thought necessary to extend the analysis by comparing a group of

identical stores for the years 1919, 1918, and 1914 in the particulars under discussion. For this purpose the records of 146 identical stores are available.

Table 49 shows for 438 store-years the amounts of selling expense per \$100 of total net sales and per \$100

TABLE 49

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED
BY SIZE OF STORE AND BY AMOUNT OF SALES PER FULL-TIME
SALES-PERSON, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Store- years	Selling Expense per \$100 of Total Net Sales												Selling Expense per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.											Amount	Per Cent.												
				Graphic												Graphic												
				0	20	40	60	80	100	120	140	0	20	40		60	80	100	120	140	160	180	200	220				
Total (Average)	Total (Average)	438	\$10.76												100.0	\$6.67												100.0
	Under \$12	151	11.19												104.0	1.19												177.5
	\$12 to \$16	107	10.97												102.0	0.80												119.4
	\$16 to \$24	118	11.22												104.3	0.59												86.1
	\$24 to \$32	39	10.05												93.4	0.37												55.2
Under \$40	\$32 & over	23	8.34												77.5	0.72												32.8
	Total (Average)	125	8.57												79.6	0.82												122.4
	Under \$12	71	10.15												94.3	1.31												195.5
	\$12 to \$16	23	6.90												64.1	0.50												74.6
	\$16 to \$24	17	7.02												65.2	0.37												55.2
\$40 to \$60	\$24 to \$32	10	6.20												57.6	0.73												34.3
	\$32 & over	4	5.02												46.7	0.14												20.9
	Total (Average)	163	9.20												85.5	0.69												103.0
	Under \$12	63	10.82												100.6	1.08												161.2
	\$12 to \$16	48	9.45												67.8	0.68												101.5
\$60 to \$80	\$16 to \$24	36	7.62												70.8	0.42												62.7
	\$24 to \$32	7	7.15												66.4	0.26												36.8
	\$32 & over	7	4.03												37.5	0.09												13.4
	Total (Average)	108	10.70												99.4	0.65												97.0
	Under \$12	14	11.63												106.1	1.15												171.6
\$80 to \$100	\$12 to \$16	31	11.11												103.5	0.80												119.4
	\$16 to \$24	46	10.26												95.4	0.54												80.6
	\$24 to \$32	12	10.29												95.6	0.39												56.2
	\$32 & over	5	11.36												105.8	0.31												46.3
	Total (Average)	42	12.09												112.4	0.60												89.6
\$100 & over	Under \$12	3	14.76												137.2	1.41												210.4
	\$12 to \$16	5	14.03												130.4	1.04												155.2
	\$16 to \$24	17	13.13												122.0	0.67												100.0
	\$24 to \$32	10	10.56												96.1	0.38												56.7
	\$32 & over	7	8.45												78.5	0.23												34.3
			Average \$10.76										Average \$6.67															

of sales for each \$1,000 sold per full-time sales-person for stores classified by size and by the amounts so sold. The total amounts of selling expense per \$100 of total net sales for each group of stores classified by size, while differing in degree from the figures

shown for 1919, reveal the same unmistakable tendency for the amounts to increase as the stores increase in size. An inverse tendency is again shown in the amounts of selling expense per \$100 of total net sales per \$1,000 sold per full-time sales-person

for the stores classified by size. For stores of a given size, the amounts of selling expense per \$100 of total net sales and per \$100 of total net sales for each \$1,000 sold per full-time sales-person decrease as the amounts sold per full-time sales-person increase.

Table 49 gives the data for the combined years and should be closely studied in connection with Tables 50 to 52, inclusive, for the years 1919, 1918, and 1914, respectively. It is unnecessary to point out in detail the size of the amounts of selling expense in terms of sales alone and in terms

TABLE 50

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling Expense per \$100 of Total Net Sales						Selling Expense per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person																																
			Amount	Per Cent.					Actual	Amount	Per Cent.										Actual																				
				Graphic							Graphic																														
				0	20	40	60	80	100		120	140	0	20	40	60	80	100	120	140	160	180	200	220																	
Total (Average)	Total (Average)	146	\$10.39							100.0	\$0.51											100.0																			
	Under \$12	15	9.21							88.6	0.95											186.3																			
	\$12 to \$16	30	10.13							97.5	0.72											141.2																			
	\$16 to \$24	61	11.54							109.1	0.60											117.6																			
	\$24 to \$32	21	9.99							96.2	0.36											70.6																			
Under \$40	\$32 & over	19	8.62							83.0	0.23											45.1																			
	Total (Average)	14	6.77							65.2	0.43											84.3																			
	Under \$12	5	6.99							67.3	0.71											139.2																			
	\$12 to \$16	1	8.07							77.7	0.60											117.6																			
	\$16 to \$24	4	7.03							67.7	0.35											68.6																			
\$40 to \$80	\$24 to \$32	2	4.73							45.5	0.18											35.3																			
	\$32 & over	2	7.11							68.4	0.20											39.2																			
	Total (Average)	54	7.49							72.1	0.46											90.2																			
	Under \$12	8	10.12							97.4	1.06											207.8																			
	\$12 to \$16	18	8.70							83.7	0.61											119.6																			
\$80 to \$120	\$16 to \$24	18	6.66							64.3	0.36											70.6																			
	\$24 to \$32	4	6.10							58.7	0.23											45.1																			
	\$32 & over	6	4.22							40.6	0.10											19.6																			
	Total (Average)	54	10.19							96.1	0.56											109.8																			
	Under \$12	2	8.95							86.1	0.89											174.5																			
\$120 to \$180	\$12 to \$16	11	11.40							109.7	0.82											160.8																			
	\$16 to \$24	30	9.94							95.7	0.53											103.9																			
	\$24 to \$32	7	8.43							81.1	0.32											62.7																			
	\$32 & over	4	12.68							124.0	0.35											68.6																			
	Total (Average)	24	11.54							111.1	0.47											92.2																			
\$180 & over	Under \$12	-	-							-	-											-																			
	\$12 to \$16	-	-							-	-											-																			
	\$16 to \$24	9	13.90							133.8	0.73											143.1																			
	\$24 to \$32	8	10.73							103.5	0.39											76.5																			
	\$32 & over	7	8.45							81.3	0.23											45.1																			
Average \$10.32																					Average \$0.51																				

Average \$10.39

Average \$0.51

of sales per \$1,000 sold per full-time sales-person for the stores in each of the years. The discussion of the 269 stores for 1919 applies equally well to Table 50 which is based upon the records of 146 stores in the same year. Minor differences in the actual

amounts and in the tendencies revealed may be seen from year to year by consulting Tables 51 and 52 for the years 1918 and 1914, respectively.

A comparison of the changes in the amounts of selling expense from year to year for this group of identical

TABLE 51

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1918

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Salesperson (in 000's)	Number of Stores	Selling Expense per \$100 of Total Net Sales										Selling Expense per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	160	180	Actual			
Total (Average)	Total (Average)	146	\$10.04											100.0	\$0.70											100.0
	Under \$12	59	10.24											93.6	1.01											144.3
	\$12 to \$16	42	11.26											102.9	0.84											120.0
	\$16 to \$24	37	11.37											103.9	0.57											81.4
	\$24 to \$32	14	10.11											92.4	0.37											52.9
Under \$40	\$32 & over	3	5.53											51.0	0.15											21.4
	Total (Average)	40	8.25											75.4	0.70											100.0
	Under \$12	21	9.90											90.5	1.14											162.9
	\$12 to \$16	7	7.17											65.5	0.53											75.7
	\$16 to \$24	5	7.53											68.8	0.40											57.1
\$40 to \$80	\$24 to \$32	9	6.48											59.2	0.23											32.9
	\$32 & over	2	2.77											25.3	0.69											99.6
	Total (Average)	61	9.36											85.6	0.71											101.4
	Under \$12	24	10.43											95.8	0.99											141.4
	\$12 to \$16	20	9.52											87.0	0.70											100.0
\$80 to \$180	\$16 to \$24	15	8.06											73.7	0.44											62.9
	\$24 to \$32	2	3.47											31.7	0.12											17.1
	\$32 & over	-	-											-	-											-
	Total (Average)	32	10.95											100.1	0.64											91.4
	Under \$12	5	10.00											91.4	0.89											127.1
\$180 & over	\$12 to \$16	11	10.21											93.3	0.72											122.9
	\$16 to \$24	10	11.58											105.9	0.58											82.9
	\$24 to \$32	5	12.77											116.7	0.49											69.6
	\$32 & over	1	6.90											63.1	0.19											27.1
	Total (Average)	13	12.52											114.4	0.70											100.0
\$180 & over	Under \$12	-	-											-	-											-
	\$12 to \$16	4	14.39											131.6	1.13											161.4
	\$16 to \$24	7	12.23											111.8	0.60											85.7
	\$24 to \$32	2	9.32											85.2	0.34											49.6
	\$32 & over	-	-											-	-											-
			Average \$10.94										Average \$0.70													

stores as classified is interesting. In Table 43 for this same group of stores it was shown that the amounts of selling expense per \$100 of total net sales decreased from 1914 to 1918, and 1918 to 1919. A similar, but more pronounced decrease was observed for the amounts of selling expense per \$100 of total net sales per \$1,000 sold per full-time sales-person. These tendencies for stores unclassified as to size, as in Table 43, are duplicated in Tables 50 to 52, inclusive, where stores are classified by size and by the amounts sold per person. As illustrative of the changes in the amounts from year to year for the stores arranged in this manner, the group having sales from \$40,000 to \$80,000 may be chosen. For the combined years the average amount of selling expense per \$100 of total net sales was \$9.20. For 1914 it was \$10.96, for 1918 it was \$9.36, and for 1919, \$7.49. Similar decreases from year to year are observed for stores having sales of \$40,000 to \$80,000, and with amounts sold per full-time sales-person of less than \$24,000. For the stores having amounts sold per full-time sales-person in excess of \$24,000 the number of instances are too few to serve as a basis for generalization. Had more stores in this group been available for study, it is felt that the direction of change would have been the same. Analysis of the stores with larger annual sales gives the same general result.

The amounts of selling expense per \$100 of total net sales for each \$1,000 sold per full-time sales-person, for the

stores with annual sales of \$40,000 to \$80,000 may be compared also from year to year. For the combined years, the amount was \$0.69. For 1914 it was \$0.97, for 1918 it was \$0.71, and for 1919, \$0.46. That is, the amounts decreased from 1914 to 1918, and 1918 to 1919, as one would expect in view of the larger amounts sold per sales-person in the later than in the earlier years. Similar decreases occur from year to year for the stores in this group when classified by the amounts sold per full-time sales-person. The reader may compare the amounts by consulting the details of Tables 50 to 52, inclusive.

The amounts of selling expense per \$100 of total net sales for each \$1,000 sold per full-time sales-person depend upon the relation first, of selling expense to sales, and second, of the number of sales-people to the total amount sold during the year. Tables 53 to 55, inclusive, are introduced to show from year to year, for stores classified by size and by amounts of selling expense in relation to sales, the extent of the salesmen's activities. The details should be consulted in connection with Tables 49 to 52. A moment's consideration of them may be of interest. For the combined years, based upon 438 store-years, the average amount of goods sold per full-time sales-person was \$16,149. This amount agrees very closely with the result secured in Volume I, page 92, of the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*, where the average amount

TABLE 52

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND
BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1914

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling Expense per \$100 of Total Net Sales												Selling Expense per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person														
			Amount	Per Cent.											Amount	Per Cent.													
				Graphic												Graphic													
				0	20	40	60	80	100	120	140	160	Actual	0		20	40	60	80	100	120	140	160	Actual					
Total (Average)	Total (Average)	146	\$11.35												100.0	\$1.00												100.0	
	Under \$12	86	12.02												105.9	1.34												134.0	
	\$12 to \$16	35	11.19												98.6	0.80												80.0	
	\$16 to \$24	20	9.81												86.4	0.53												53.0	
	\$24 to \$32	4	11.39												100.4	0.41												41.0	
	\$32 & over	1	2.85												25.1	0.08												8.0	
Under \$40	Total (Average)	71	9.19												81.0	1.02												102.0	
	Under \$12	45	10.66												93.9	1.48												148.0	
	\$12 to \$16	15	6.68												59.9	0.46												46.0	
	\$16 to \$24	8	6.61												58.2	0.36												36.0	
	\$24 to \$32	3	6.75												59.6	0.25												25.0	
	\$32 & over	-	-												-	-												-	
\$40 to \$80	Total (Average)	48	10.96												96.6	0.97												97.0	
	Under \$12	31	11.26												99.2	1.17												117.0	
	\$12 to \$16	10	10.56												95.0	0.77												77.0	
	\$16 to \$24	5	9.93												87.6	0.58												58.0	
	\$24 to \$32	1	16.06												159.1	0.63												63.0	
	\$32 & over	1	2.85												25.1	0.08												8.0	
\$80 to \$180	Total (Average)	22	11.63												102.5	0.90												90.0	
	Under \$12	7	13.02												114.7	1.34												134.0	
	\$12 to \$16	9	11.97												105.5	0.88												88.0	
	\$16 to \$24	6	9.58												84.4	0.50												50.0	
	\$24 to \$32	-	-												-	-												-	
	\$32 & over	-	-												-	-												-	
\$180 & over	Total (Average)	5	15.93												122.7	1.08												108.0	
	Under \$12	3	14.76												150.0	1.41												141.0	
	\$12 to \$16	1	13.34												117.5	0.89												89.0	
	\$16 to \$24	1	13.11												118.5	0.73												73.0	
	\$24 to \$32	-	-												-	-												-	
	\$32 & over	-	-												-	-												-	
Average \$11.35															Average \$1.00														

Average \$11.35

Average \$1.00

for 974 store-years is seen to be \$16,230. In 1919, the average amount for 146 stores was \$20,437; in 1918 it was \$15,613, and in 1914, \$11,345. These amounts for the individual years likewise closely correspond to those shown in Tables 61, 62, and 63, respectively,

in Volume I of the Bureau's study, referred to above. Moreover, the increases from year to year also hold for each group of stores when classified by size. When the stores are grouped by size, the amounts sold per full-time sales-person are shown to









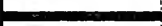

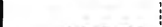






increase for the combined years and for each year as the size of the store increases. This condition also agrees with that shown in Volume I of the Bureau's study.

It was shown in Table 48 for 1919 for 269 stores that the amounts sold per full-time sales-person vary in-

versely with the amounts of selling expense per \$100 of total net sales, when the stores are treated as a total and when classified by size. A similar condition holds, as is shown in Tables 53 to 56, for a group of identical stores for the combined and individual years 1919, 1918, and 1914.

TABLE 53

TOTAL NET SALES, NUMBER OF FULL-TIME SALES-PEOPLE, AND AMOUNT OF SALES PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED BY SIZE AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Number of Full-time Sales-people	Net Sales per Full-time Sales-person										
					Amount	Per Cent.				Actual					
						Graphic									
						0	20	40	60	80	100	120	140	160	
Total (Average)	Total (Average)	439	\$42,655,162	2,641.4	\$16,149										100.0
	Under \$6	96	4,473,628	278.3	16,075										99.5
	\$6 to \$12	241	25,752,733	1,509.8	17,057										105.6
	\$12 & over	102	12,428,801	853.3	14,566										90.2
Under \$40	Total (Average)	125	3,490,472	335.7	10,398										64.4
	Under \$6	41	1,143,342	90.1	12,690										78.6
	\$6 to \$12	63	1,748,712	160.2	10,916										67.6
	\$12 & over	21	598,418	85.4	7,007										43.4
\$40 to \$80	Total (Average)	163	9,223,460	689.4	13,379										82.8
	Under \$6	45	2,435,176	140.7	17,308										107.2
	\$6 to \$12	83	4,711,780	376.2	12,525										77.6
	\$12 & over	35	2,076,512	172.5	12,038										74.5
\$80 to \$180	Total (Average)	108	12,642,526	764.1	16,546										102.5
	Under \$6	9	895,110	47.5	18,844										116.7
	\$6 to \$12	66	7,959,099	476.1	16,717										103.5
	\$12 & over	33	3,788,317	240.5	15,752										97.5
\$180 & over	Total (Average)	42	17,208,696	852.2	20,209										125.7
	Under \$6	-	-	-	-										-
	\$6 to \$12	29	11,333,142	497.3	22,789										141.1
	\$12 & over	13	5,965,554	354.9	16,809										104.1
















Average \$16,149

From the discussion of the amounts of selling expense per \$100 of total net sales and per \$100 of sales per \$1,000 sold per full-time sales-person for stores classified by size and by the amounts sold per full-time sales-person, it may be concluded as follows: First, the amounts of selling

expense per \$100 of total net sales roughly decrease as the amounts sold per full-time sales-person increase. This condition is true not only for the stores treated as a whole, but also when they are classified by size. Moreover, it is true for the combined as well as for the individual years.

TABLE 54

TOTAL NET SALES, NUMBER OF FULL-TIME SALES-PEOPLE, AND AMOUNT OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Number of Full-time Sales-people	Net Sales per Full-time Sales-person									
					Amount	Per Cent.								Actual
						Graphic								
					0	20	40	60	80	100	120	140		
Total (Average)	Total (Average)	146	\$19,931,753	975.3	\$20,437									100.0
	Under \$6	39	2,447,315	127.6	19,180									93.8
	\$6 to \$12	78	12,206,633	560.6	21,774									106.5
	\$12 & over	29	5,277,805	287.1	18,383									89.9
Under \$40	Total (Average)	14	428,714	27.2	15,762									77.1
	Under \$6	5	140,498	7.9	17,786									87.0
	\$6 to \$12	9	238,216	19.3	14,933									73.1
	\$12 & over	-	-	-	-									-
\$40 to \$80	Total (Average)	54	3,059,173	187.6	16,307									79.8
	Under \$6	25	1,411,707	72.2	19,553									95.7
	\$6 to \$12	23	1,265,481	84.1	15,047									73.6
	\$12 & over	7	381,985	31.3	12,204									59.7
\$80 to \$160	Total (Average)	54	6,354,238	347.3	19,296									89.5
	Under \$6	9	895,110	47.5	18,844									92.2
	\$6 to \$12	29	3,572,114	197.1	18,123									88.7
	\$12 & over	16	1,887,014	102.7	13,374									89.9
\$160 & over	Total (Average)	24	10,089,628	413.2	24,418									119.5
	Under \$6	-	-	-	-									-
	\$6 to \$12	18	7,080,822	260.1	27,223									133.2
	\$12 & over	6	3,008,806	153.1	19,653									96.2

Average \$20,437

Second, the amounts of selling expense per \$100 of total net sales per \$1,000 sold per full-time sales-person increase as the stores increase in size and decrease as the amounts sold per full-time sales-person increase. That is, relative to the size of the stores, the amounts vary directly, but rela-

tive to the amounts sold per full-time sales-person, they vary inversely. This condition holds not only for the stores in the combined years, but also for the stores in each of the years 1919, 1918, and 1914.

The practical aspects of these conclusions from the standpoint of the

TABLE 55

TOTAL NET SALES, NUMBER OF FULL-TIME SALES-PEOPLE, AND AMOUNT OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Number of Full-time Sales-people	Net Sales per Full-time Sales-person										
					Amount	Per Cent.									Actual
						Graphic									
						0	20	40	60	80	100	120	140		
Total (Average)	Total (Average)	146	\$13,981,287	855.5	\$15,613										100.0
	Under \$6	31	1,266,945	66.6	14,600										93.7
	\$6 to \$12	63	8,904,157	547.5	16,428										105.2
	\$12 & over	32	3,720,165	261.4	14,232										91.2
Under \$40	Total (Average)	40	1,193,673	100.8	11,842										75.8
	Under \$6	15	427,693	32.4	13,509										86.5
	\$6 to \$12	19	564,477	45.4	12,433										79.6
	\$12 & over	6	191,503	23.0	8,326										53.3
\$40 to \$80	Total (Average)	61	3,526,649	267.6	13,179										84.4
	Under \$6	16	829,252	54.2	15,300										98.0
	\$6 to \$12	32	1,634,577	142.0	12,920										82.8
	\$12 & over	13	862,820	71.4	12,084										77.4
\$80 to \$180	Total (Average)	32	3,746,707	219.9	17,038										109.1
	Under \$6	-	-	-	-										-
	\$6 to \$12	23	2,718,734	161.4	16,845										107.9
	\$12 & over	9	1,027,973	58.5	17,572										112.5
\$180 & over	Total (Average)	13	5,514,258	307.2	17,950										115.0
	Under \$6	-	-	-	-										-
	\$6 to \$12	9	3,676,369	198.7	19,509										125.0
	\$12 & over	4	1,837,889	108.5	15,096										96.7

Average \$15,613



















merchant may be stated as follows: If it is desired to decrease selling expense in relation to sales, one method by which it may be done is to increase the amounts sold per full-time sales-person per year. The extent to which the reduction may be expected, for stores of a given size,

is revealed in the detailed figures in Tables 46 to 56, inclusive.

In the foregoing discussion the amounts of selling expense have been expressed per \$100 of sales, per \$100 of total net sales per stock turnover, and per \$100 total net sales for each \$1,000 sold for a full-time sales-

TABLE 56

TOTAL NET SALES, NUMBER OF FULL-TIME SALES-PEOPLE, AND AMOUNT OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Number of Full-time Sales-people	Net Sales per Full-time Sales-person									
					Amount	Per Cent.								Actual
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	146	\$8,742,122	770.6	\$11,345									100.0
	Under \$6	25	759,368	64.1	11,847									104.4
	\$6 to \$12	80	4,551,943	401.7	11,332									99.9
	\$12 & over	41	3,430,811	304.8	11,256									99.2
Under \$40	Total (Average)	71	1,868,085	207.7	8,994									79.3
	Under \$6	21	565,151	49.8	11,348									100.0
	\$6 to \$12	35	896,019	95.5	9,382									82.7
	\$12 & over	15	406,915	62.4	6,521									57.5
\$40 to \$50	Total (Average)	49	2,637,646	234.2	11,262									99.3
	Under \$6	4	194,217	14.3	13,582									119.7
	\$6 to \$12	29	1,611,722	150.1	10,738									94.6
	\$12 & over	15	831,707	69.8	11,916									105.0
\$50 to \$100	Total (Average)	22	2,541,581	196.9	12,908									113.8
	Under \$6	-	-	-	-									-
	\$6 to \$12	14	1,668,251	117.6	14,186									125.0
	\$12 & over	8	873,330	79.3	11,013									97.1
\$100 & over	Total (Average)	5	1,604,810	131.8	12,859									113.3
	Under \$6	-	-	-	-									-
	\$6 to \$12	2	375,951	38.5	9,765									86.1
	\$12 & over	3	1,318,859	93.3	14,136									124.6

Average \$11,345

person. They may also be stated in terms of \$100 of total expense, per \$100 of total expense per stock turnover, and per \$100 of total expense per \$1,000 sold per full-time salesperson. For these latter purposes, the records of 269 stores are available for 1919 and 146 for each of the years 1919, 1918, and 1914. By following the order of discussion previously employed, the amounts may now be related to total expense.

Table 57, which applies to 269 stores for the year 1919, shows the amounts of selling expense in stores classified by size and by the amount of sales per full-time salesperson. The units of analysis used are: for each \$100 of total expense, and for each \$100 of total expense per stock turnover.

It will be recalled from an earlier discussion that the amounts of selling expense and total expense per \$100 of total net sales increase as the stores increase in size. When the amounts of selling expense are expressed in terms of \$100 of total expense, that is, as proportions of total expense, they also increase as the stores increase in size. This means that the rate at which selling expense increases with the size of the store exceeds that for total expense.

For the 269 stores considered in Table 57, the average amount of selling expense per \$100 of total expense in 1919 was \$48.92. For the stores with sales under \$40,000 it was \$34.90; for those with sales of \$40,000 to \$80,000 it was \$42.00; for those with sales of \$80,000 to \$180,000

it was \$51.66, and for those with sales of \$180,000 and over it was \$49.95. That is, the amounts increase with the size of the store except for the last group of stores—those with annual sales of \$180,000 and over. When the amounts of selling expense are expressed in terms of total expense per stock turnover,* the average amount for all stores is \$22.24. For those stores with sales under \$40,000 it is \$23.27; for those with sales of \$40,000 to \$80,000 it is \$23.33; for those with sales of \$80,000 to \$180,000 it is \$27.19; and for those with sales of \$180,000 and over it is \$18.50. That is, the amounts for the first two groups are essentially constant. For the group with sales of \$80,000 to \$180,000, the average is considerably larger, and for the group with sales of \$180,000 and over, smaller than that for any other single group. The size of the amounts for the latter group of stores is explained primarily by the presence of some stores with large sales and rapid stock turns.

When the different groups of stores are considered according to the amounts sold per full-time salesperson, the amounts of selling expense per \$100 of total expense irregularly decrease as the amounts sold per person increase. The decrease is somewhat more regular, however, when the amounts of selling expense per \$100 of total expense are shown for each stock turnover.

Table 57 is instructive because of

* The method by which this unit is computed is explained on page 4, item 20.

TABLE 57

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER STOCK TURNOVER,
FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES
PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling Expense per \$100 of Total Expense						Selling Expense per \$100 of Total Expense per Stock Turnover													
			Amount	Per Cent.					Amount	Per Cent.				Actual								
				Graphic						Graphic												
				0	20	40	60	80	100	120	0	20	40	60	80	100	120	140	160			
Total (Average)	Total (Average)	229	\$49.92							100.0	\$22.24							100.0				
	Under \$12	30	42.18							86.2	24.61							111.6				
	\$12 to \$16	56	50.52							103.3	24.06							106.2				
	\$16 to \$24	103	51.57							105.4	25.79							116.0				
	\$24 to \$32	44	49.26							100.7	20.53							92.3				
	\$32 & over	36	43.42							69.6	15.51							69.7				
Under \$40	Total (Average)	31	34.90							71.3	23.27							104.6				
	Under \$12	9	36.79							79.3	27.71							124.6				
	\$12 to \$16	4	32.81							67.1	18.23							82.0				
	\$16 to \$24	7	44.92							91.6	34.55							155.4				
	\$24 to \$32	7	27.16							55.5	15.98							71.9				
	\$32 & over	4	27.34							65.9	17.09							76.6				
\$40 to \$60	Total (Average)	103	42.00							65.9	23.33							104.9				
	Under \$12	16	42.07							86.0	26.05							126.1				
	\$12 to \$16	34	46.33							94.7	27.25							122.5				
	\$16 to \$24	21	39.08							79.8	21.70							97.6				
	\$24 to \$32	9	41.33							84.5	19.68							88.8				
	\$32 & over	13	35.36							72.3	18.62							83.7				
\$60 to \$120	Total (Average)	92	51.66							105.6	27.19							122.3				
	Under \$12	4	56.00							118.6	30.53							137.3				
	\$12 to \$16	15	56.52							116.6	29.26							131.6				
	\$16 to \$24	60	48.39							96.9	26.68							120.9				
	\$24 to \$32	14	50.55							103.3	24.07							108.2				
	\$32 & over	9	56.20							119.0	20.79							93.5				
\$120 & over	Total (Average)	43	49.95							102.1	18.50							83.2				
	Under \$12	1	34.61							70.7	13.84							62.2				
	\$12 to \$16	3	48.29							96.7	16.65							74.9				
	\$16 to \$24	15	57.16							116.6	21.90							96.8				
	\$24 to \$32	14	50.35							102.9	19.43							87.4				
	\$32 & over	10	40.69							83.2	12.72							57.2				
Average \$49.92																	Average \$22.24					

the light which it throws on the overhead expense in stores of different size, under different conditions of sales activities per salesman, and different rates of stock turnover. Selling expense becomes an increasing

proportion of total expense as stores increase in size. By total expense is meant the entire expense of operation. Moreover, selling expense per \$100 of total expense per stock turnover becomes, on the whole, larger as stores

increase in size. The practical significance to the merchant of these and other conclusions to which one is led from analyzing Table 57 is that he may expect selling expense as compared to total expense to become larger as he increases the volume of his business, and may expect it to become smaller for a given amount of business as he increases the sales of his full-time sales-people. Both conditions follow when selling expenses are expressed as a part of total expense alone and when expressed in the same way per stock turnover.

The detail in Table 57 relates to 1919 for 269 stores. When the analysis is extended so as to cover selling expense of the same group of stores, expressed as a part of total expense for each \$1,000 sold per full-time sales-person, the relation of selling expense to total expense, for stores of different size and with different amounts sold per person, is more definite. The selling expense of stores so classified is set out in detail in Table 58. For all the stores treated as a unit, the amount of selling expense per \$100 of total expense for every \$1,000 sold per full-time sales-person was \$2.42. For the stores with sales less than \$40,000 it was \$2.06; for those with sales of \$40,000 to \$80,000 it was \$2.53; for those with sales of \$80,000 to \$180,000 it was \$2.69; and for those with sales of \$180,000 and over it was \$2.16. That is, the amounts increase with store size, for stores with sales less than \$180,000. The amounts decrease for the stores having sales in excess of

this amount. It should be remembered that the amounts sold per full-time sales-person increase with the size of the store. This increase, however, does not compensate for increased selling expense per \$100 of total expense until the stores with annual sales of \$180,000 and over are encountered.

When the stores are classified by size and by the amounts sold per full-time person, the selling expense per \$100 of total expense for each \$1,000 sold decreases as the amounts sold per person increase. For the entire group the amounts range from \$4.14, for those with sales under \$12,000, to \$1.05 for those with sales of \$32,000 and over. Similar decreases occur for each group of stores when classified by size. These are shown in graphic form in Table 58.

In Table 58 two comparisons are established: First, the relation of selling expense to total expense for stores of different size and different salesmen's activities, and second, the relation of total expense per \$1,000 sold per full-time sales-person for stores of the same size with different amounts sold per person. The averages shown serve as standards by which merchants may measure the amounts of their selling expense and by which they may compare their expenses with those of their competitors differently situated and operating under different conditions.

Table 58, however, covers the year 1919 only. In view of this fact, it is instructive from the same viewpoint to consider a group of identical stores

TABLE 58

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE AND BY
AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling Expense per \$100 of Total Expense					Selling Expense per \$100 of Total Expense per \$1,000 of Sales per Full-time Sales-person																																					
			Amount	Per Cent.				Amount	Per Cent.																																				
				Graphic					Graphic																																				
				0	20	40	60	80	100	120		0	20	40	60	80	100	120	140	160	180																								
Total (Average)	Total (Average)	269	\$49.92					100.0	\$2.42					100.0																															
	Under \$12	30	42.18					86.2	4.14					171.1																															
	\$12 to \$16	56	50.52					103.3	3.58					147.9																															
	\$16 to \$24	103	51.57					105.4	2.71					112.0																															
	\$24 to \$32	44	49.26					100.7	1.79					74.0																															
	\$32 & over	56	43.42					88.8	1.05					43.4																															
Under \$40	Total (Average)	31	34.90					71.3	2.06					85.1																															
	Under \$12	9	38.79					79.3	3.68					160.3																															
	\$12 to \$16	4	32.81					67.1	2.26					93.4																															
	\$16 to \$24	7	44.92					91.6	2.26					93.4																															
	\$24 to \$32	7	27.16					55.5	0.95					39.3																															
	\$32 & over	4	27.34					55.9	0.78					32.2																															
\$40 to \$80	Total (Average)	103	42.00					85.9	2.53					104.5																															
	Under \$12	16	42.07					86.0	4.19					173.1																															
	\$12 to \$16	34	46.33					94.7	3.21					132.6																															
	\$16 to \$24	31	39.06					79.8	2.07					85.5																															
	\$24 to \$32	9	41.33					84.5	1.53					63.2																															
	\$32 & over	13	35.38					72.3	0.83					34.3																															
\$80 to \$120	Total (Average)	92	51.66					105.6	2.69					111.2																															
	Under \$12	4	58.00					118.6	5.59					231.0*																															
	\$12 to \$16	15	58.52					119.6	4.33					178.9																															
	\$16 to \$24	50	48.39					98.9	2.55					105.4																															
	\$24 to \$32	14	50.55					103.3	1.85					76.4																															
	\$32 & over	9	58.20					119.0	1.51					62.4																															
\$120 & over	Total (Average)	43	49.95					102.1	2.16					89.3																															
	Under \$12	1	34.61					70.7	3.31					136.8																															
	\$12 to \$16	3	48.29					98.7	3.36					138.8																															
	\$16 to \$24	15	57.16					116.8	2.99					123.6																															
	\$24 to \$32	14	50.35					102.9	1.63					75.6																															
	\$32 & over	10	40.69					85.2	0.97					40.1																															
Average \$49.92																							Average \$2.42																						

Average \$40.92

Average \$2.42

* Full length not shown

from year to year, classified in the same manner. This is done in Tables 59 to 62, inclusive.

Table 59 shows the amounts of selling expense per \$100 of total ex-

pense and per \$100 of total expense per \$1,000 sold per full-time sales-person for stores in the combined years, while Tables 60 to 62, inclusive, give corresponding facts for 1919,

TABLE 59

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED
BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-
PERSON, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling Expense per \$100 of Total Expense										Selling Expense per \$100 of Total Expense per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	160	Actual		0	20	40	60	80	100	120	140	160	180	200	Actual
Total (Average)	Total (Average)	438	\$50.23											100.0	\$3.11											100.0
	Under \$12	151	51.08											101.7	5.44											174.9
	\$12 to \$16	107	50.88											101.3	3.71											119.3
	\$16 to \$24	118	51.81											103.1	2.70											96.8
	\$24 to \$32	39	47.45											94.5	1.73											55.6
	\$32 & over	23	43.11											85.8	1.16											37.3
Under \$40	Total (Average)	125	41.58											82.8	4.00											128.6
	Under \$12	71	44.45											88.5	5.72											135.9
	\$12 to \$16	23	36.80											73.3	2.69											86.5
	\$16 to \$24	17	42.15											83.9	2.22											71.4
	\$24 to \$32	10	34.95											69.6	1.27											40.8
	\$32 & over	4	28.43											56.6	0.77											24.8
\$40 to \$80	Total (Average)	163	46.07											91.7	3.44											110.6
	Under \$12	63	50.34											100.2	5.04											162.1
	\$12 to \$16	48	45.37											90.3	3.29											105.8
	\$16 to \$24	38	41.63											82.9	2.27											73.0
	\$24 to \$32	7	39.65											78.9	1.45											46.6
	\$32 & over	7	35.72											71.1	0.84											27.0
\$80 to \$180	Total (Average)	108	50.83											101.2	3.07											98.7
	Under \$12	14	52.04											103.6	5.13											165.0
	\$12 to \$16	31	52.26											104.0	3.77											121.2
	\$16 to \$24	46	50.63											100.8	2.97											85.9
	\$24 to \$32	12	46.49											92.6	1.74											55.9
	\$32 & over	5	52.09											103.7	1.43											65.0
\$180 & over	Total (Average)	42	53.37											106.3	2.63											84.6
	Under \$12	3	71.91											143.2	6.87											220.9*
	\$12 to \$16	5	50.82											117.1	4.38											140.8
	\$16 to \$24	17	55.04											109.6	2.82											90.7
	\$24 to \$32	10	49.24											98.0	1.77											56.9
	\$32 & over	7	42.08											83.9	1.15											37.0
Average \$50.23													Average \$3.11													

Average \$50.23

Average \$3.11

*Full length not shown

1918, and 1914, respectively. By consulting Table 60 it may be seen that the relationships between selling expense and total expense, expressed either in the simple form or in terms of \$1,000 sold per full-time sales-person closely agree with the figures

in Table 58 based upon a somewhat larger number of stores for the same year. Moreover, the same tendencies that are found in Table 53 are duplicated with minor differences in Table 60.

In the discussion, page 36 above,

it was shown that the amounts of selling expense per \$100 of total expense increased between 1914 and 1918, and 1918 and 1919. In this case 154 identical stores were used for comparative purposes. In the tables now under discussion, the amount in 1918 is slightly less than in 1914,

while the amount for 1919 is slightly in excess of that for 1918. The differences, however, are small and the extent of agreement with the facts shown in Table 5 significant. The direction of the change from year to year in the amounts of selling expense per \$100 of total expense and per \$100

TABLE 60

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling expense per \$100 of Total Expense										Selling Expense per \$100 of Total Expense per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.										Amount	For Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	160	180	200	Actual		
Total (Average)	Total (Average)	146	\$50.90											100.0	\$2.49											100.0
	Under \$12	15	45.39											89.2	4.06											187.1
	\$12 to \$16	30	56.29											110.6	4.02											161.4
	\$16 to \$24	41	53.40											104.9	2.84											114.1
	\$24 to \$32	21	49.06											96.4	1.78											71.5
Under \$40	\$32 & over	19	43.62											85.7	1.18											47.4
	Total (Average)	14	36.06											74.8	2.41											96.8
	Under \$12	6	36.12											71.0	3.67											147.4
	\$12 to \$16	1	37.87											74.4	2.83											113.7
	\$16 to \$24	4	56.87											111.7	2.87											115.3
\$40 to \$50	\$24 to \$32	2	30.87											60.8	1.16											46.6
	\$32 & over	2	28.76											66.5	0.83											33.3
	Total (Average)	54	43.44											85.3	2.68											106.8
	Under \$12	8	46.30											91.0	4.83											194.0
	\$12 to \$16	18	47.32											93.0	3.34											134.1
\$50 to \$100	\$16 to \$24	18	39.49											77.6	2.12											85.1
	\$24 to \$32	4	41.09											80.7	1.53											61.4
	\$32 & over	6	36.98											76.6	0.90											36.1
	Total (Average)	54	52.37											102.9	2.86											114.9
	Under \$12	2	50.85											99.9	5.08											204.0*
\$100 & over	\$12 to \$16	11	64.79											127.3	4.67											187.6
	\$16 to \$24	30	49.73											97.7	2.68											107.8
	\$24 to \$32	7	47.04											92.4	1.77											71.1
	\$32 & over	4	54.67											107.4	1.50											60.2
	Total (Average)	24	52.28											102.7	2.14											85.9
\$100 & over	Under \$12	-	-											-	-											-
	\$12 to \$16	-	-											-	-											-
	\$16 to \$24	9	58.61											115.1	3.08											123.7
	\$24 to \$32	8	50.08											98.4	1.80											72.3
	\$32 & over	7	42.08											82.7	2.15											46.2
			Average \$50.90										Average \$2.49													

*Full length not shown

of total expense for each \$1,000 of sales per full-time sales-person, for the stores when classified by size and by the amount sold per person, generally agrees with that for the stores treated as a whole. It is unnecessary in this connection to point out the differences in detail inasmuch as interest now

lies chiefly in the change from store-group to store-group in each of the years. Sufficient attention possibly has been given to this matter in the consideration of Table 58. Tables 59 to 62, inclusive, are introduced largely to supplement the detail of the larger group of stores in Table 58.

TABLE 61

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1918

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling Expense per \$100 of Total Expense														Selling Expense per \$100 of Total Expense per \$1,000 of Sales per Full-time Sales-person																		
			Amount	Per Cent.													Amount	Per Cent.													Actual				
				Graphic														Graphic																	
				0	20	40	60	80	100	120	140	0	20	40	60	80		100	120	140	160	180													
Total (Average)	Total (Average)	146	\$49.39														100.0	\$3.16														100.0			
	Under \$12	60	49.38														100.0	4.66														153.8			
	\$12 to \$16	42	49.67														101.8	3.73														118.0			
	\$16 to \$24	37	50.77														108.8	2.56														81.0			
	\$24 to \$32	14	45.12														87.5	1.58														50.0			
	\$32 & over	3	38.24														77.4	1.02														32.3			
Under \$40	Total (Average)	40	41.79														84.6	3.53														111.7			
	Under \$12	21	46.44														94.0	5.33														166.7			
	\$12 to \$16	7	35.40														71.8	2.63														83.2			
	\$16 to \$24	5	41.50														84.2	2.21														69.9			
	\$24 to \$32	5	34.87														70.6	1.84														39.2			
	\$32 & over	2	27.54														55.8	0.69														21.8			
\$40 to \$80	Total (Average)	61	45.89														92.9	3.48														110.1			
	Under \$12	24	50.47														102.2	4.76														150.6			
	\$12 to \$16	20	44.64														90.4	3.29														104.1			
	\$16 to \$24	15	41.97														85.0	2.30														72.8			
	\$24 to \$32	2	24.33														49.3	0.86														27.2			
	\$32 & over	-	-														-	-														-			
\$80 to \$120	Total (Average)	32	43.71														98.6	2.86														90.5			
	Under \$12	5	50.19														101.6	4.47														141.5			
	\$12 to \$16	11	45.68														92.5	3.24														102.5			
	\$16 to \$24	10	53.68														108.3	2.66														81.2			
	\$24 to \$32	5	46.01														93.2	1.71														54.1			
	\$32 & over	1	41.25														83.5	1.14														36.1			
\$120 & over	Total (Average)	13	53.15														107.6	2.96														93.7			
	Under \$12	-	-														-	-														-			
	\$12 to \$16	4	59.60														120.7	4.69														149.4			
	\$16 to \$24	7	51.83														104.9	2.56														81.0			
	\$24 to \$32	2	43.25														87.6	1.57														49.7			
	\$32 & over	-	-														-	-														-			
Average \$43.39																		Average \$3.16																	

Average \$49.39

Average \$3.16

TABLE 62

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND
BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1914

Classified Total Net Sales (in Q's)	Amount of Sales per Full-time Sales-person (in Q's)	Number of Stores	Selling Expense per \$100 of Total Expense							Selling Expense per \$100 of Total Expense per \$1,000 of Sales per Full-time Sales-person															
			Amount	Per Cent.						Amount	Per Cent.						Actual								
				Graphic							Graphic														
				0	20	40	60	80	100	120	140	160				0	20	40	60	80	100	120	140	160	
Total (Average)	Total (Average)	146	\$50.18								100.0	\$4.42								100.0					
	Under \$12	86	50.74								105.1	5.88								133.0					
	\$12 to \$16	35	48.77								97.2	3.47								78.5					
	\$16 to \$24	20	46.04								91.7	2.47								55.9					
	\$24 to \$32	4	42.95								85.6	1.55								35.3					
	\$32 and over	1	20.13								40.1	0.53								12.0					
Under \$40	Total (Average)	71	42.12								83.9	4.68								105.9					
	Under \$12	45	44.36								88.4	6.17								139.6					
	\$12 to \$16	15	37.54								74.8	2.72								61.5					
	\$16 to \$24	8	35.39								70.5	1.90								43.0					
	\$24 to \$32	3	37.61								75.0	1.40								31.7					
	\$32 and over	-	-								-	-								-					
\$40 to \$60	Total (Average)	48	48.62								96.9	4.32								97.7					
	Under \$12	31	51.22								102.1	5.31								120.1					
	\$12 to \$16	10	44.20								88.1	3.22								72.9					
	\$16 to \$24	5	47.33								94.3	2.69								60.9					
	\$24 to \$32	1	46.49								92.6	1.63								36.9					
	\$32 and over	1	20.13								40.1	0.53								12.0					
\$60 to \$180	Total (Average)	22	50.60								100.8	3.92								68.7					
	Under \$12	7	52.99								105.6	5.47								123.8					
	\$12 to \$16	9	48.79								97.3	3.59								81.2					
	\$16 to \$24	6	48.78								99.2	2.59								58.6					
	\$24 to \$32	-	-								-	-								-					
	\$32 and over	-	-								-	-								-					
\$180 and over	Total (Average)	5	60.33								120.2	4.69								106.1					
	Under \$12	3	71.91								145.3	6.87								155.4					
	\$12 to \$16	1	57.31								114.2	3.62								86.4					
	\$16 to \$24	1	41.65								85.0	2.32								52.5					
	\$24 to \$32	-	-								-	-								-					
	\$32 and over	-	-								-	-								-					
Average \$50.18																	Average \$4.42								

C.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, for Stores Classified by Size and by Size of City in Which Located,* 1919.

* Population figures are for 1920.

In Tables 10 to 14, inclusive, it is shown that the amounts of selling expense per \$100 of total net sales for stores of a given size are higher in large than in small cities. For the stores having annual sales of \$40,000 to \$80,000 in the respective city-

groups, the amounts in 1919, as shown in Table 10, are \$6.89 and \$8.66. It is now desired to make some further comparisons of selling expense for stores with a given amount of sales, but with different location. This is done in Tables 63 to 66, inclusive.

In Table 63, 103 stores with annual sales of \$40,000 to \$80,000 in 1919 are classified according to location and the amount of sales per full-time sales-person. The average amount of selling expense per \$100 of total net sales for the 89 stores in the small cities was \$7.34, while for the 14 stores located in large cities it was \$8.46. That is, it cost per \$100 of

total net sales \$1.12 or 15 per cent. more to sell goods in stores in the large than in stores in small cities. Moreover, the stores in the small cities have an advantage even when the amount sold per salesman remains the same. To illustrate: The selling expense per \$100 of total net sales for the 29 stores located in small cities, with an average size of \$56,780, and with sales per sales-person of \$12,000 to \$16,000, was \$8.48. For the 5 stores with similar characteristics, with an average size of \$62,953, but located in the larger cities, the corresponding amount was \$9.33. Too much ought not to be made of these

TABLE 63

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER, FOR STORES WITH SALES OF \$40,000 TO \$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Size of City (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling Expense per \$100 of Total Net Sales										Selling Expense per \$100 of Total Net Sales per Stock Turnover																																
			Amount	Per Cent.										Amount	Per Cent.																														
				Graphic											Graphic																														
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	160	180	200	Actual																					
Total (Average)	Total (Average)	103	\$7.50											100.0	\$3.41											100.0																			
	Under \$12	16	9.04											120.5	5.32											156.0																			
	\$12 to \$16	34	8.62											114.9	4.10											120.2																			
	\$16 to \$24	31	6.56											87.7	3.29											96.5																			
	\$24 to \$32	9	7.18											95.7	2.99											87.7																			
	\$32 & over	13	5.06											67.5	1.81											53.1																			
Under 40	Total (Average)	89	7.34											97.9	4.32											126.7																			
	Under \$12	14	9.41											125.5	6.27											163.9																			
	\$12 to \$16	29	8.48											113.1	4.99											146.3																			
	\$16 to \$24	29	6.51											86.6	3.83											112.3																			
	\$24 to \$32	6	5.62											74.9	3.12											91.5																			
	\$32 & over	11	4.86											65.1	2.44											71.6																			
40 and over	Total (Average)	14	8.46											112.6	4.03											112.2																			
	Under \$12	2	6.26											83.5	3.91											114.7																			
	\$12 to \$16	5	9.33											124.4	4.66											136.7																			
	\$16 to \$24	2	7.27											96.9	2.94											86.2																			
	\$24 to \$32	3	9.99											133.2	4.00											117.3																			
	\$32 & over	2	6.21											82.6	3.88											113.6																			
Average \$7.50																							Average \$3.41																						

differences when the amounts are based upon a few stores, yet, when they are preponderantly one way, as they are in the table, the results shown by even a few stores become significant. Within each city-group, the amounts of selling expense per \$100 of total net sales decrease as the amounts sold per salesman increase, the continuity of the decrease being unbroken for the stores in the small cities and, in spite of the fewer stores, interrupted at only two places for the stores in the large cities.

In the analysis of selling expense for these stores, however, use may be made of another and more refined unit; that is, selling expense per \$100 of sales per turnover. When all the stores, taken as a unit, are compared in this way, those in the small cities which had an advantage when selling expense is measured in sales alone, are now at a disadvantage, as compared to those in the large cities. Relatively, the amounts of selling expense in terms of sales and stock turnover for the two groups stand in the relation of 107 to 100, the actual amounts being \$4.32 and \$4.03. This means that rapidity of turnover for the stores in the large cities more than compensates for their larger selling expense in terms of sales. Such a condition also holds for three of the groups of stores having the same amounts sold per salesman, but with different location. In two groups an inverse condition obtains. Moreover, as the amounts sold per sales-person increase, the decline in selling expense is more rapid when measured

in terms of sales per turnover than when expressed in sales alone.

The practical significance of the foregoing condition seems to be: First, that merchants doing a given amount of business have lower amounts of selling expense in terms of sales in the small, than in the large cities, but that they have higher expenses when they are measured in sales per turnover. Second, that for a given amount of annual sales, stores located in small cities may reduce the selling expense per \$100 of sales, and per \$100 of sales per stock turnover, respectively, from \$9.41 to \$4.88, and from \$6.27 to \$2.44 by increasing annual sales per salesman from an amount less than \$12,000 to \$32,000 and over.

Table 64 is similar to Table 63. The same stores are included and the method of grouping them is identical. The only additional feature of the table is that the unit of expense is expressed in terms of sales for each \$1,000 sold per full-time sales-person. It is unnecessary to repeat what has been said concerning the comparative advantages, with respect to the relation of selling expense to sales, of the two groups of stores differently located. When the amounts of selling expense are expressed in terms of sales for each \$1,000 sold per full-time sales-person, the stores in the small cities retain their advantage, but one less marked than that which characterizes them when selling expense is related to sales alone.

The possibilities of reducing the amounts of selling expense per \$100

TABLE 64

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR STORES WITH SALES OF \$40,000
TO \$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT
OF SALES PER FULL-TIME SALES-PERSON, 1919

Size of City (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling Expense per \$100 of Total Net Sales										Selling Expense per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person																																								
			Amount	Per Cent.										Amount	Per Cent.																																						
				Graphic											Actual	Graphic													Actual																								
			0	20	40	60	80	100	120	140		0	20	40	60	80	100	120	140	160	180	200	220																														
Total (Average)	Total (Average)	103	\$7.50											100.0	70.45														170.0																								
	Under \$12	16	9.04											110.5	0.99														206.0																								
	\$12 to \$16	34	8.62											114.9	0.60														133.3																								
	\$16 to \$24	31	6.58											87.7	0.35														77.9																								
	\$24 to \$32	9	7.18											95.7	0.27														60.0																								
	\$32 & over	13	5.05											67.5	0.12														26.7																								
Under 40	Total (Average)	89	7.34											97.9	0.45														100.0																								
	Under \$12	14	9.41											125.5	0.93														206.7																								
	\$12 to \$16	29	8.48											113.1	0.59														131.1																								
	\$16 to \$24	29	6.51											86.6	0.35														77.8																								
	\$24 to \$32	6	5.62											74.9	0.21														46.7																								
	\$32 & over	11	4.88											65.1	0.12														26.7																								
40 and over	Total (Average)	14	8.46											112.8	0.48														106.7																								
	Under \$12	2	6.26											83.5	0.66														146.1																								
	\$12 to \$16	5	9.33											124.4	0.63														140.0																								
	\$16 to \$24	2	7.27											96.9	0.35														77.9																								
	\$24 to \$32	3	9.99											133.2	0.38														84.4																								
	\$32 & over	2	6.21											82.8	0.14														31.1																								
Average \$7.50																											Average \$0.45																										

of total net sales per \$1,000 sold per full-time sales-person by stimulating sales per salesman are shown by amounts in the part of the table bearing that caption.

The effect of store location and the amounts of goods sold per full-time sales-person on selling expense may be shown also by expressing selling expense in terms, first of total expense, and second of total expense per stock turnover. This is done in Table 65, which includes the same stores as those studied in Tables 63 and 64.





































Out of each \$100 of total expense, selling expense constitutes \$42.58, for

the stores in small cities, and \$39.30 for the stores in the large cities. That is, selling expense in relation to total operating expense is high in the stores in the small, and low in the stores in the large cities. Relatively, however, the advantage accruing to the stores in the large cities is less when selling expense is expressed in relation to total expense alone than when given in terms of total expense per stock turnover.

When the stores are classified by the amount sold per sales-person, the amounts of selling expense per \$100 of total expense decrease as the amounts so sold increase, the direction

TABLE 65

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER STOCK TURNOVER,
FOR STORES WITH SALES OF \$40,000 TO \$80,000, CLASSIFIED BY SIZE OF CITY
AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Size of City (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Selling Expense per \$100 of Total Expense						Selling Expense per \$100 of Total Expense per Stock Turnover																	
			Amount	Per Cent.					Amount	Per Cent.					Actual											
				Graphic	0	20	40	60		80	100	120	140													
Total (Average)	Total (Average)	103	\$42.00						100.0	\$23.33						100.0										
	Under \$12	16	42.07						100.2	28.05						120.2										
	\$12 to \$16	34	46.33						110.3	27.25						116.8										
	\$16 to \$24	31	39.06						93.0	21.70						93.0										
	\$24 to \$32	9	41.33						96.4	19.68						84.4										
	\$32 & over	13	35.38						84.2	18.62						79.8										
Under 40	Total (Average)	89	42.58						101.4	25.05						107.4										
	Under \$12	14	45.68						104.0	29.12						124.8										
	\$12 to \$16	29	47.88						114.0	28.16						120.7										
	\$16 to \$24	29	39.97						95.2	23.51						100.8										
	\$24 to \$32	6	34.42						82.0	19.12						82.0										
	\$32 & over	11	36.04						85.8	18.02						77.2										
40 and over	Total (Average)	14	39.30						93.6	18.71						80.2										
	Under \$12	2	29.78						70.9	18.61						79.8										
	\$12 to \$16	5	40.13						95.5	20.07						86.0										
	\$16 to \$24	2	51.78						75.7	9.63						41.3										
	\$24 to \$32	3	51.86						123.5	20.74						88.9										
	\$32 & over	2	32.41						77.2	20.26						86.8										
			Average \$42.00												Average \$23.33											

and consistency of change being more marked for the stores in the small than for those in the large cities. It is readily seen that such a decrease should occur because, for a given amount of business, the larger the amount sold per person, the fewer are the salesmen which are needed and the less, absolutely and relative to the total expense, is the selling expense incurred.

Rather more distinct tendencies in the direction of change in selling expense in relation to total expense for this group of stores are revealed

when the amounts are expressed per unit of stock turnover. Such amounts are found in the right-hand part of Table 65. The stores in the small cities offer better means for comparison because the number involved is larger. For the stores in which the amount of sales per full-time sales-person was less than \$12,000, the average amount of selling expense per \$100 of total expense per stock turnover was \$29.12. For those with sales of \$32,000 and over, it was \$18.02. Between these limits, the amounts decrease as the amounts sold by sales-

men increase. For the group of stores in the large cities, the direction of change in the amounts is inconclusive.

Another method of stating the amounts of selling expense in these 103 stores classified by location and amounts sold per salesman may be used to advantage. In Table 66 the amounts of selling expense per \$100 of total expense for each \$1,000 sold per full-time sales-person are shown for the stores classified as in Table 65. The bases of classification of the stores are location and amounts sold per salesman. The amounts of selling expense in terms of total expense alone

for the stores thus classified are more fully comparable from group to group when they are put on a \$1,000 basis. Thus expressed, they are shown in the right-hand column of Table 66.

Stated in this form, the amounts for stores in the small cities are relatively high and for those in the large cities, relatively low. That is, they stand in the same position as do those when the unit of measurement is total expense alone. Within each city-group they decrease as the sales per full-time sales-person increase, the absolute and percentage reductions in the small and large city-groups being, re-

TABLE 66

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR STORES WITH SALES OF \$40,000 TO \$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Size of City (In 000's)	Amount of Sales per Full-time Sales-person (In 000's)	Number of Stores	Selling Expense per \$100 of Total Expense										Selling Expense per \$100 of Total Expense per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	160	180	0	20	40	60	80	100	120	140	160	180			
Total (Average)	Total (Average)	103	\$22.00											100.0	\$2.53											100.0
	Under \$12	16	42.07											100.2	4.19											165.6
	\$12 to \$16	34	46.33											110.3	3.21											126.9
	\$16 to \$24	31	39.06											93.0	2.07											81.9
	\$24 to \$32	9	41.33											96.4	1.53											60.5
	\$32 & over	13	35.36											84.2	0.83											32.0
Under 40	Total (Average)	89	42.58											101.4	2.59											102.4
	Under \$12	14	43.68											104.0	4.31											170.4
	\$12 to \$16	29	47.88											114.0	3.32											131.2
	\$16 to \$24	29	39.97											95.2	2.13											84.2
	\$24 to \$32	6	34.47											82.0	1.26											49.8
	\$32 & over	11	36.04											85.8	0.86											34.0
40 and over	Total (Average)	14	39.30											93.6	2.23											88.1
	Under \$12	2	29.78											70.9	3.14											124.1
	\$12 to \$16	5	40.13											95.5	2.73											107.9
	\$16 to \$24	2	31.78											75.7	1.52											60.1
	\$24 to \$32	3	51.86											123.5	1.96											77.5
	\$32 & over	2	32.41											77.2	0.71											28.1
			Average \$22.00										Average \$2.53													

spectively, \$3.45 or 80 per cent. and \$2.43 or 77 per cent.

D.—Summary.

- (1). The amounts of selling expense per \$100 of total net sales for each \$1,000 sold per full-time sales-person, and per \$100 of total expense for each \$1,000 sold per full-time sales-person decreased between 1914 and 1918, and 1918 and 1919. This condition holds for all stores and also for stores classified by size and by amount of sales per full-time sales-person.
 - (2). For stores of a given size, the amounts of selling expense in terms of sales, of sales per stock turnover, and of sales per \$1,000 sold per full-time sales-person, decrease as the amounts sold by each sales-person increase. This condition holds for stores in both small and large cities.
 - (3). For stores with a given amount of sales per full-time sales-person, selling expenses in terms of sales alone, in terms of sales combined with stock turnover, or in terms of the amount sold per full-time sales-person, increase as the size of the store increases.
 - (4). For stores of a given size, the proportions of total expense, attributable to selling decrease as the amount sold per salesman increases. This is true when selling expense is measured in terms of total expense alone, and when combined with stock turnover or \$1,000 of sales per full-time sales-person.
 - (5). For stores with a given amount of sales per sales-person, the amounts of selling expense in terms of total expense, in either the single or combined units, increase with the size of the stores.
 - (6). For stores of a given size, the average amount of selling expense in terms of sales per stock turnover is higher for stores in small than for those in large cities. The amount in terms of sales per full-time sales-person also is higher for the stores located in large cities.
 - (7). For stores of a given size, the average amount of selling expense, in terms of total expense combined with either stock turnover or the amount sold per sales-person, is higher for stores in small than for those in large cities.
- (2)—YEARLY AMOUNTS OF SELLING EXPENSE IN RELATION TO THE METHODS BY WHICH SALESMEN ARE PAID.
- In the search for an explanation of the conditions which account for high or low selling expense, an analysis has been made of the expenditures

TABLE 67

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER,
FOR STORES CLASSIFIED BY SIZE AND BY METHOD OF PAYING
REGULAR SALESMEN, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Selling Expense per \$100 of Total Net Sales						Selling Expense per \$100 of Total Net Sales per Stock Turnover							
			Amount	Per Cent.					Amount	Per Cent.						
				Graphic						Actual	Graphic					Actual
				0	20	40	60	80	100		120	0	20	40	60	
Total (Average)	Total (Average)	254	\$9.75						100.0	\$4.64						100.0
	Straight Salary	197	9.21						94.5	4.61						99.4
	Salary & Commission	57	10.79						110.7	4.50						97.0
Under \$40	Total (Average)	28	6.09						62.5	4.06						87.5
	Straight Salary	23	<u>5.88</u>						60.0	<u>3.90</u>						84.1
	Salary & Commission	5	7.00						71.8	4.67						100.6
\$40 to \$80	Total (Average)	97	7.55						77.4	4.19						90.3
	Straight Salary	85	7.65						78.5	4.25						91.6
	Salary & Commission	12	<u>6.95</u>						71.3	<u>3.86</u>						83.2
\$80 to \$180	Total (Average)	89	10.03						102.9	5.28						113.8
	Straight Salary	65	<u>9.55</u>						97.9	<u>4.78</u>						103.0
	Salary & Commission	24	11.24						115.3	6.24						134.5
\$180 & over	Total (Average)	40	10.66						109.3	3.95						85.1
	Straight Salary	24	<u>10.23</u>						104.9	4.09						88.1
	Salary & Commission	16	11.12						114.1	<u>3.59</u>						77.4
			Average \$9.75						Average \$4.64							

for this purpose in 1919 for 254 stores classified by size and by the methods by which salesmen are paid. Two methods of compensation are distinguished for purposes of study. The stores are classified, first, into those which use only straight salaries in contrast with those in which salaries and commissions are employed; and second, into those which pay or do not pay some form of bonus. The tables bearing upon each of these methods of payment contain the results of our findings on the relative size of the amounts of selling expense expressed in different units.

A.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, for Stores Classified by Size, 1919.

The total amount of wages and salaries properly chargeable to selling, on the average, constituted in 1919, 63 per cent. of total selling expense.* Accordingly, in the comparisons immediately following, any effect which the methods of compensation might have on total selling expense would be restricted by this fact. In spite

* Table 178, p. 259.

TABLE 68

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE AND
BY METHOD OF PAYING REGULAR SALESMEN, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Selling Expense per \$100 of Total Net Sales						Selling Expense per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person							
			Amount	Per Cent.					Amount	Per Cent.						
				Graphic	Actual					Graphic	Actual					
					0	20	40	60			80	100	120	0	20	40
Tot 1 (Average)	Total (Average)	254	\$9.75						100.0	\$9.48						100.0
	Straight Salary	137	9.21						94.5	0.45						95.9
	Salary & Commission	57	10.79						110.7	0.53						110.4
Under \$40	Total (Average)	28	6.09						62.5	0.34						70.8
	Straight Salary	23	5.85						60.0	0.35						72.9
	Salary & Commission	5	7.00						71.8	0.28						58.3
\$40 to \$60	Total (Average)	97	7.55						77.4	0.46						95.8
	Straight Salary	85	7.65						78.5	0.46						95.9
	Salary & Commission	12	6.95						71.3	0.45						93.7
\$60 to \$120	Total (Average)	89	10.03						102.9	0.52						108.3
	Straight Salary	65	9.55						97.9	0.50						104.2
	Salary & Commission	24	11.24						115.3	0.55						114.6
\$120 and over	Total (Average)	40	10.66						109.3	0.45						93.7
	Straight Salary	24	10.23						104.9	0.32						81.2
	Salary & Commission	16	11.12						114.1	0.52						106.3
			Average \$9.75						Average \$9.48							

of this, however, it has been thought worth-while to make such comparisons at this place and to reserve for a later section the discussion of the relation of wages and salaries to total net sales and to total expense for stores using different methods of compensating their employees.

In Tables 67 and 68 the amounts of selling expense in terms of net sales, in terms of net sales per stock turnover, and in terms of net sales for each \$1,000 sold per full-time sales-person, for stores classified by size and by method of compensating regular salesmen, are set out in detail. Without reviewing the amounts in

these tables, item by item, it may be of interest briefly to summarize them and to generalize upon the results secured.

In Table 67, for three of the four groups of stores, when classified by size, the amounts of selling expense per \$100 of total net sales are lower for stores which pay their employees on a straight salary basis.* The differences in amounts, moreover, can hardly be attributed to the size of the stores involved. It will be recalled, of course, that the amounts of

* The averages which are low are underlined in this and the following tables relating to this subject.

TABLE 69

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER STOCK TURNOVER,
FOR STORES CLASSIFIED BY SIZE AND BY METHOD OF PAYING
REGULAR SALESMEN, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Selling Expense per \$100 of Total Expense										Selling Expense per \$100 of Total Expense per Stock Turnover													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	0	20	40		60	80	100	120	140							
Total (Average)	Total (Average)	254	\$47.47											100.0	\$22.60											100.0
	Straight Salary	197	45.89											96.7	22.95											101.5
	Salary & Commission	57	50.27											105.9	20.95											92.7
Under \$40	Total (Average)	28	36.26											76.4	24.17											106.9
	Straight Salary	23	<u>35.61</u>											75.0	<u>23.74</u>											105.0
	Salary & Commission	5	38.56											81.2	25.71											113.8
\$40 to \$80	Total (Average)	97	42.50											89.1	25.50											104.0
	Straight Salary	85	42.77											90.1	25.76											105.1
	Salary & Commission	12	<u>39.24</u>											82.7	<u>21.80</u>											96.5
\$80 to \$180	Total (Average)	89	51.46											108.4	27.08											119.8
	Straight Salary	65	<u>50.48</u>											106.5	<u>25.24</u>											111.7
	Salary & Commission	24	53.79											113.1	29.83											132.0
\$180 & over	Total (Average)	40	47.03											99.1	17.42											77.1
	Straight Salary	24	<u>44.51</u>											93.3	17.72											78.4
	Salary & Commission	16	50.06											105.5	<u>16.15</u>											71.5
			Average \$47.47										Average \$22.60													

selling expense per \$100 of total net sales increase as stores increase in size. But the differences in the size of the stores in these cases are not sufficient to explain the differences in the amounts.

When the amounts of selling expense per \$100 of total net sales for these stores are found per stock turnover, in two of the groups the amounts are lower for stores using straight salaries, and in two they are lower for stores using salaries and commissions.































When the amounts of selling expense per \$100 of total net sales are expressed in terms of each \$1,000 sold

per full-time sales-person, as in Table 68, two of the groups of stores show smaller selling expense where straight salaries predominate and two, smaller selling expense where salaries and commissions are used. The results of this comparison are negative as to any effect which different methods of compensating employees may have on selling expense.

In Tables 69 and 70 the amounts of selling expense, for stores classified as in Tables 67 and 68, are shown in terms of total expense alone, in relation to total expense per stock turnover, and in relation to total expense

TABLE 70

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE AND BY
METHOD OF PAYING REGULAR SALESMEN, 1919

Classified Total Net Sales (in '00's)	Method of Compensation	Number of Stores	Selling Expense per \$100 of Total Expense												Selling Expense per \$100 of Total Expense per \$1,000 of Sales per Full-time Sales-person																	
			Amount	Per Cent.											Actual	Amount	Per Cent.											Actual				
				0	20	40	60	80	100	120	0	20	40	60			80	100	120													
Total (Average)	Total (Average)	154	\$47.47												100.0	\$2.34												100.0				
	Straight Salary	197	45.89												96.7	2.27												97.0				
	Salary & Commission	57	50.27												105.9	2.45												104.7				
Under \$40	Total (Average)	28	36.66												76.4	2.04												87.2				
	Straight Salary	23	35.61												75.0	2.15												91.9				
	Salary & Commission	5	38.56												81.2	<u>1.53</u>												65.4				
\$40 to \$80	Total (Average)	97	42.50												89.1	2.59												110.7				
	Straight Salary	65	42.77												90.1	2.60												111.1				
	Salary & Commission	12	39.24												82.7	<u>2.52</u>												107.7				
\$80 to \$160	Total (Average)	69	51.46												108.4	2.65												113.2				
	Straight Salary	45	50.48												106.3	2.65												113.2				
	Salary & Commission	24	53.69												113.1	<u>2.64</u>												112.8				
\$160 and over	Total (Average)	40	47.03												99.1	1.99												85.0				
	Straight Salary	24	44.21												93.3	<u>1.68</u>												71.8				
	Salary & Commission	16	50.06												105.5	2.75												100.4				
			Average \$47.47															Average \$2.54														

for each \$1,000 sold per full-time sales-person. Summarizing these tables briefly, it may be observed that, in terms of total expense, the amounts of selling expense are lower for stores using straight salaries in three of the groups classified by size. In one group an inverse condition obtains. When the amounts of selling expense per \$100 of total expense per stock turnover are determined, two of the groups of stores show the amounts to be less when straight salaries are used and two groups show them to be less when salaries and commissions obtain. That is, in terms of this unit alone the results are inconclusive.

When the amounts of selling expense per \$100 of total expense are shown for each \$1,000 sold per full-time sales-person, as in Table 70, three of the groups of stores show the amounts to be less when salaries and commissions are employed and one where straight salaries predominate.

From the above tables the evidence of a definite relation between the methods of compensating employees and the amounts of selling expense seems conflicting. However, this is not the case, as is clear from the following summary, when all of the group aver-

ages are considered together.* First, the amounts of selling expense per \$100 of total net sales and per \$100 of total expense are lower where straight salaries are used in six out of the eight cases. In two instances the amounts are lower where salaries and commissions predominate. Second, in four cases out of eight they are lower for stores using straight salaries when the amounts are expressed in terms of sales per turnover and total expense per turnover, while in three of the

* The averages which are low are underscored in Tables 67 to 70, inclusive.

eight cases they are lower for straight salaries when the amounts are expressed in terms of sales, and in terms of total expense per \$1,000 of sales per full-time sales-person. Obviously, the connection between the method of paying salesmen and the amounts of selling expense is best measured in terms of sales or total expense. The conditions affecting turnover and the amounts sold per sales-person are so varied as to make comparisons in such units of comparatively little significance in this connection. The amounts are expressed in these more

TABLE 71
AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER, FOR STORES PAYING OR NOT PAYING A BONUS TO REGULAR SALESMEN, CLASSIFIED BY SIZE OF STORE, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Selling Expense per \$100 of Total Net Sales						Selling Expense per \$100 of Total Net Sales per Stock Turnover																											
			Amount	Per Cent.						Amount	Per Cent.																									
				Graphic							Graphic																									
				0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120	140	Actual																
Total (Average)	Total (Average)	254	\$9.75							100.0	\$4.64							100.0																		
	With Bonus	60	10.96							112.4	4.77							122.6																		
	Without Bonus	194	9.13							93.6	4.35							93.7																		
Under \$40	Total (Average)	28	6.09							62.5	4.06							87.5																		
	With Bonus	5	6.05							62.1	4.03							86.9																		
	Without Bonus	23	6.10							62.6	4.07							87.7																		
\$40 to \$80	Total (Average)	97	7.55							77.4	4.19							90.3																		
	With Bonus	14	8.28							84.9	4.14							89.2																		
	Without Bonus	83	7.42							76.1	4.36							94.0																		
\$80 to \$180	Total (Average)	89	10.03							102.9	5.28							113.8																		
	With Bonus	28	11.01							112.9	5.79							124.8																		
	Without Bonus	61	9.52							98.7	5.06							109.1																		
\$180 & over	Total (Average)	40	10.66							109.3	5.95							85.1																		
	With Bonus	15	11.39							116.8	4.38							94.4																		
	Without Bonus	25	10.03							102.9	5.58							77.2																		
			Average \$9.75																	Average \$4.64																

refined units largely because of the value which they may have to the individual merchant rather than because of any value which attaches to them for purposes of generalization. A distinction which has been made before between the actual amounts of expenditure and the tendencies for these amounts to increase or decrease should be kept in mind.

The amounts of selling expense may also be compared for stores of different size which pay or do not pay their employees bonuses. Comparisons from this viewpoint for 254 stores are contained in Tables 71 to 74, inclusive.

Table 71 shows the amounts of selling expense per \$100 of total net sales and per unit of sales per stock turnover for stores classified by size and by the use or non-use of bonuses. In three of the groups of stores, classified by size, the amounts of selling expense are lower where bonuses are not used.* In one instance an inverse condition holds. When the amounts of selling expense are shown per \$100 of sales for each stock turnover, two groups of the stores have lower amounts of selling expense where

* The averages which are lower are underscored in Tables 71 to 74, inclusive.

TABLE 72
AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR STORES PAYING OR NOT PAYING A BONUS TO REGULAR SALESMEN, CLASSIFIED BY SIZE OF STORE, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Selling Expense per \$100 of Total Net Sales										Selling Expense per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person																							
			Amount	Per Cent.										Amount	Per Cent.																					
				Graphic											Graphic																					
				0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120	Actual																	
Total (Average)	Total (Average)	254	\$9.75											100.0	\$0.48											100.0										
	With Bonus	60	10.96											112.4	0.48											100.0										
	Without Bonus	194	9.13											93.6	0.47											97.9										
Under \$40	Total (Average)	28	6.09											62.5	0.34											70.8										
	With Bonus	5	6.05											62.1	0.34											70.8										
	Without Bonus	23	6.10											62.6	0.34											70.9										
\$40 to \$90	Total (Average)	97	7.55											77.4	0.46											95.8										
	With Bonus	14	8.28											84.9	0.47											97.9										
	Without Bonus	83	7.42											76.1	0.46											95.8										
\$90 to \$150	Total (Average)	89	10.03											102.9	0.52											108.3										
	With Bonus	26	11.01											112.9	0.55											114.6										
	Without Bonus	63	9.62											96.7	0.50											104.2										
\$150 & over	Total (Average)	40	10.66											109.3	0.45											93.7										
	With Bonus	15	11.39											116.8	0.45											93.7										
	Without Bonus	25	10.03											102.9	0.45											93.7										
			Average \$9.75																	Average \$0.48																

TABLE 73

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER STOCK TURNOVER,
FOR STORES PAYING OR NOT PAYING A BONUS TO REGULAR SALESMEN,
CLASSIFIED BY SIZE OF STORE, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Selling Expense per \$100 of Total Expense						Selling Expense per \$100 of Total Expense per Stock Turnover									
			Amount	Per Cent.						Amount	Per Cent.							
				Graphic							Graphic							
				0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120
Total (Average)	Total (Average)	254	\$47.47							100.0	\$22.60							100.0
	With Bonus	60	50.06							105.5	21.77							96.3
	Without Bonus	194	45.98							96.9	21.90							96.9
Under \$40	Total (Average)	23	36.26							76.4	24.17							106.9
	With Bonus	5	35.13							74.0	23.42							103.6
	Without Bonus	23	36.50							76.9	24.33							107.7
\$40 to \$80	Total (Average)	97	42.30							89.1	23.50							104.0
	With Bonus	14	49.70							104.7	24.85							110.0
	Without Bonus	83	41.09							86.6	24.17							106.9
\$80 to \$180	Total (Average)	89	51.46							108.4	27.08							119.8
	With Bonus	26	53.39							112.5	28.10							124.3
	Without Bonus	63	50.58							106.6	26.62							117.9
\$180 & over	Total (Average)	40	47.03							99.1	17.42							77.1
	With Bonus	15	48.92							103.1	18.82							83.3
	Without Bonus	25	45.32							93.5	16.19							71.6
			Average \$47.47						Average \$22.60									

bonuses are not used and two have lower amounts where they are used. That is, when the amounts of selling expense are expressed in the second unit, there seems to be no characteristic relationship between the amounts of selling expense and the use or non-use of bonuses.

Table 72 shows the amounts of selling expense for these 254 stores expressed in \$100 of sales per \$1,000 sold per full-time sales-person. The differences from group to group, as bonuses are used or not used, are less marked when the amounts are expressed in this unit than when they

are given for sales alone, and the direction of change offers no basis for generalization.

In Table 73 the amounts of selling expense are shown for each \$100 of total expense for the stores classified as in Tables 71 and 72. On the whole, judging from the amounts of selling expense for stores of different size and the use or non-use of bonuses, it seems that the amounts are smaller for stores which have no bonuses. This is the condition in three of the four groups. When the amounts of selling expense are expressed in terms of \$100 of total expense per stock

TABLE 74

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR STORES PAYING OR NOT PAYING A BONUS
TO REGULAR SALESMEN, CLASSIFIED BY SIZE OF STORE, 1919

Classified Total Net Sales (in '00's)	Method of Compensation	Number of Stores	Selling Expense per \$100 of Total Expense							Selling Expense per \$100 of Total Expense per \$1,000 of Sales per Full-time Sales-person								
			Amount	Per Cent.						Amount	Per Cent.							
				Graphic							Graphic							
				0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120
Total (Average)	Total (Average)	254	\$47.47							100.0	\$2.34							100.0
	With Bonus	60	50.06							105.5	2.21							94.4
	Without Bonus	194	45.98							96.9	2.38							101.7
Under \$40	Total (Average)	28	36.26							76.4	2.04							87.2
	With Bonus	5	35.13							74.0	<u>1.85</u>							83.3
	Without Bonus	23	36.50							76.9	2.06							88.0
\$40 to \$50	Total (Average)	97	42.30							89.1	2.59							110.7
	With Bonus	14	49.70							104.7	2.60							119.7
	Without Bonus	83	41.09							86.6	<u>2.55</u>							109.0
\$50 to \$100	Total (Average)	89	51.46							108.4	2.65							113.2
	With Bonus	26	53.39							112.5	2.68							114.5
	Without Bonus	63	50.58							106.6	<u>2.63</u>							112.4
\$100 & over	Total (Average)	40	47.03							99.1	1.99							85.0
	With Bonus	15	48.92							103.1	<u>1.93</u>							82.5
	Without Bonus	25	45.32							95.5	2.03							86.6
			Average \$47.47							Average \$2.34								

turnover the same tendency characterizes the groups of stores, all but one of them showing smaller amounts of selling expense, expressed in this unit, where bonuses are not used.

In Table 74 the amounts of selling expense for the stores classified as in Table 73 are shown per \$100 of total expense per \$1,000 of sales per full-time sales-person. In two of the groups of stores the amounts are smaller where bonuses are not used and in two, smaller where bonuses obtain. No generalization can be made from this table in regard to the

effect of the method of compensation on selling expense.

The conclusions from Tables 73 and 74 are not wholly negative if the experience is considered as a unit. If the amounts of selling expense are expressed first, in terms of sales, and second, in terms of total expense, they are found, in six out of eight instances, to be lower where no bonuses are paid. Moreover, in five out of eight cases, they are found to be lower where no bonuses obtain, when they are expressed in sales per turnover and in total expense per turn-

over. When they are expressed in terms of total net sales and total expense per \$1,000 sold per full-time sales-person, no significance can be attached to the differences according to the methods by which salesmen are compensated.

When Tables 67 to 74, inclusive, are considered as a unit, the evidence that the amounts of selling expense, per unit of sales and per unit of total expense, are lower where no forms of extra compensation are paid is cumulative, inasmuch as the condition obtains in twelve of the sixteen cases.

It is not contended in the above discussion that the results of this analysis conclusively show that the amounts of selling expense are lower where neither commissions nor bonuses are paid. At best it indicates the nature of the weight of evidence from the experience available. With another selection of stores or additional evidence, the conclusions might be different. The detail of the tables are incorporated in this study largely because they represent the information that was available, and so far as the Bureau knows, are the only data of this character which have been collected.

4.—YEARLY AMOUNTS OF SELLING EXPENSE IN RELATION TO EXPENDITURES FOR RENT AND TO INVESTMENTS IN FIXTURES, FOR STORES CLASSIFIED BY YEARS, BY SIZE, AND BY LOCATION.

In the preceding sections, the stores have been classified according to con-

ditions which seem to determine the amounts of selling expense in relation to sales and to other standards. A further analysis is now made of the stores classified in a somewhat different way. As a working hypothesis it seemed certain that the amounts of selling expense in stores of different size and location would be conditioned in part at least by the amounts of floor space used, the expenditures made for rent per square foot of floor space, and the amounts invested in fixtures per unit of sales and per unit of floor space. The following tables and the discussion concerning them present the data bearing upon these relationships.

(1)—YEARLY AMOUNTS OF SELLING EXPENSE IN RELATION TO EXPENDITURES FOR RENT PER 100 SQUARE FEET OF FLOOR SPACE.


















The records of 303 stores are available for the study of the relationship of selling expense to sales under different conditions of space utilization and expenditures for rent. These stores are classified by size and by the size of the city in which they are located.

A.—*Yearly Amounts of Selling Expense per \$100 of Total Net Sales for Stores Classified by Size, 1919.*

Addressing attention first to the stores classified by size, some interesting facts may be deduced from the tables concerned. As the stores increase in size, as shown in Table 75,

TABLE 75

AVERAGE AMOUNT OF FLOOR SPACE PER STORE, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Classified Total Net Sales (in 000's)	Amount of Rent per 100 sq. ft. of Floor Space	Number of Stores	Total Floor Space (sq. ft.)	Average Floor Space per Store															
				Amount (sq. ft.)	Per Cent.														
					Graphic														Actual
					0	20	40	60	80	100	120	140	160	180	200	220	240		
Total (Average)	Total (Average)	503	1,422,359	4,694															100.0
	Under \$20	34	208,599	6,159															151.2
	\$20 to \$40	120	427,157	4,060															86.5
	\$40 to \$60	63	325,335	5,164															110.0
	\$60 & over	86	400,468	4,657															99.2
Under \$40	Total (Average)	45	97,716	2,171															46.3
	Under \$20	10	33,498	3,350															71.4
	\$20 to \$40	25	46,871	1,876															40.0
	\$40 to \$60	7	13,739	1,963															41.8
	\$60 & over	3	3,608	1,203															25.6
\$40 to \$80	Total (Average)	113	347,999	3,080															65.6
	Under \$20	16	94,172	5,886															125.4
	\$20 to \$40	48	140,326	2,923															62.3
	\$40 to \$60	23	62,909	2,735															58.3
	\$60 & over	26	50,592	1,946															41.5
\$60 to \$120	Total (Average)	102	511,239	5,012															106.8
	Under \$20	6	44,709	7,452															158.8
	\$20 to \$40	41	240,855	5,876															125.2
	\$40 to \$60	23	105,123	4,571															97.4
	\$60 & over	32	120,552	3,767															80.3
\$120 & over	Total (Average)	43	465,405	10,823															230.6
	Under \$20	2	37,030	18,510															394.3*
	\$20 to \$40	6	59,105	9,851															209.9
	\$40 to \$60	10	143,564	14,356															305.8*
	\$60 & over	25	225,716	9,029															192.4

Average 4,694

* Full length not shown

the amounts of floor space* used per store increase. The average amount in square feet for the stores having annual sales under \$40,000 is 2,171; for those with annual sales of \$40,000 to \$80,000 it is 3,080; for those with annual sales of \$80,000 to \$180,000 it is 5,012; and for those with annual sales of \$180,000 and over, 10,823. For a given amount of sales the floor space used decreases as the amounts of rent paid per 100 square feet of floor space increase.

It may be of interest to point out, for a given group of stores, the detailed conditions having to do with the floor space used per store, the amount of floor space used per \$100 of total net sales, and the corresponding amounts of selling expense per \$100 of total net sales. For this purpose, 113 stores having annual sales of \$40,000 to \$80,000 will be used. The average amount of floor space for these stores is 3,080 square feet. The average amount per \$100 of total net sales is 5.35 square feet (Table 76), and the selling expense per \$100 of total net sales, \$7.13 (Table 77). As the amounts of rent paid per 100 square feet of floor space in these stores increase, as shown in Table 75, the average amounts of floor space decrease; the amount for those which pay less than \$20 per 100 square feet of floor space being 5,886 square feet, and for those which pay \$60 and over for the same amount of space, 1,946. Moreover, as the amounts of rent paid

* The total floor space, rather than that used for selling alone, is the area used in this and the following ratios.

per 100 square feet of floor space increase, as shown in Table 76, the amounts of floor space used per \$100 of total net sales decrease. For the stores paying less than \$20 per 100 square feet of floor space, the amount is 9.93 square feet, and for those spending \$60 and over for the same amount of space it is 3.28. That is, the more valuable the space, as evidenced in the rent paid per 100 square feet of floor space, the smaller is the space used in relation to the sales. However, when the same group of stores is studied from the point of view of selling expense per \$100 of total net sales, as in Table 77, the amounts are found generally to increase as the amounts of rent paid per 100 square feet of floor space increase. The average for the entire group is \$7.13. For the stores paying less than \$20 in rent per 100 square feet of floor space the amount is \$6.63, and for those spending \$60 and over, \$8.44. If the tendencies are summarized for this group of stores, it is found that the amounts of floor space per store and the amounts of floor space per \$100 of total net sales decrease, while the amounts of selling expense per \$100 of total net sales increase as the amounts of rent per 100 square feet of floor space increase.

These conditions, as noted, refer alone to one group of stores. An inspection of Tables 75, 76, and 77 will show how nearly the conditions are duplicated for the various groups.

Reserving for the moment further consideration of Tables 76 and 77, the reader's attention is called to Tables

TABLE 76

TOTAL NET SALES, FLOOR SPACE, AND AMOUNT OF FLOOR SPACE PER \$100 OF TOTAL NET SALES, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Classified Total Net Sales (in 000's)	Amount of Rent per 100 sq. ft. of Floor Space	Number of Stores	Total Net Sales	Total Floor Space (sq. ft.)	Floor Space per \$100 of Total Net Sales																Actual
					Amount (sq. ft.)	Per Cent.															
						Graphic															
						0	20	40	60	80	100	120	140	160	180	200	220	240	260		
Total (Average)	Total (Average)	305	\$36,193,710	1,420,359	3.93																100.0
	Under \$20	34	3,512,144	209,339	5.96																151.7
	\$20 to \$40	120	9,457,372	437,157	5.15																131.0
	\$40 to \$60	63	8,649,576	325,325	3.76																95.7
	\$60 & over	86	14,574,626	400,493	2.75																70.0
Under \$10	Total (Average)	45	1,599,086	97,716	6.08																177.6
	Under \$20	10	275,510	55,498	12.16																339.4*
	\$20 to \$40	25	797,840	46,871	5.87																149.4
	\$40 to \$60	7	212,008	13,739	6.46																164.4
	\$60 & over	3	113,708	3,608	3.17																80.7
\$10 to \$20	Total (Average)	113	6,500,326	347,999	5.55																136.1
	Under \$20	16	948,525	94,172	9.93																252.7
	\$20 to \$40	48	2,643,807	140,326	5.31																135.1
	\$40 to \$60	23	1,366,387	62,909	4.60																117.0
	\$60 & over	26	1,541,617	50,592	3.09																83.5
\$20 to \$100	Total (Average)	102	11,986,562	511,239	4.27																108.7
	Under \$20	6	700,807	44,709	6.33																162.3
	\$20 to \$40	41	4,643,255	240,655	5.19																132.1
	\$40 to \$60	23	2,707,107	105,123	3.88																98.7
	\$60 & over	32	3,935,193	120,552	3.06																77.9
\$100 & over	Total (Average)	43	16,307,134	465,405	2.85																72.5
	Under \$20	2	1,587,302	37,020	2.33																59.3
	\$20 to \$40	6	1,372,470	59,105	4.31																109.7
	\$40 to \$60	10	4,563,274	143,564	3.29																83.7
	\$60 & over	25	8,204,090	225,716	2.51																63.9

Average 3.93

* Full length not shown

78 to 80, inclusive, where the same stores are classified by the amounts of rent paid per 100 square feet of floor space and by size. In order to illustrate the significance of these tables, a group of stores paying between \$20 and \$40 in rent per 100 square feet of floor space, but having

different annual sales, are selected. In Table 78, with 120 stores involved, the average amount of floor space used was 4,060 square feet. As the stores increase in size the amounts used increase rapidly from 1,876, for those with sales of less than \$40,000, to 9,851 for those with sales of \$180,000

and over. When, for the same group of stores, the amounts of floor space per \$100 of total net sales are determined, as in Table 79, an inverse condition holds. The average amount of floor space per \$100 of total net sales is 5.15 square feet. For the stores with sales under \$40,000 it is 5.87, and for those with sales of \$180,-000 and over, 4.31. That is, the stores

selling most goods require least space in terms of sales made.

The foregoing details, however, refer solely to the amounts of floor space used and the amounts required for each \$100 of sales. When the amounts of selling expense per \$100 of sales for this class of stores, distributed by size, are determined as in Table 80, the average is \$8.17. Those

TABLE 77

























AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER SALES PER SQUARE FOOT OF FLOOR SPACE, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Classified Total Net Sales (in 000's)	Rent per 100 sq. ft. of Floor Space	Number of Stores	Selling Expense per \$100 of Total Net Sales										Selling Expense per \$100 of Total Net Sales per Sales per sq. ft. of Floor Space													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	160	180		0	20	40	60	80	100	120	140	160	180	200	Actual
Total (Average)	Total (Average)	303	\$9.93											100.0	\$0.39											100.0
	Under \$20	34	11.94											120.2	0.71											182.1
	\$20 to \$40	120	8.17											82.3	0.42											107.7
	\$40 to \$60	63	10.58											106.5	0.40											102.6
	\$60 & over	86	10.21											102.8	0.28											71.8
Under \$40	Total (Average)	45	6.46											65.1	0.45											115.4
	Under \$20	10	7.30											73.5	0.89											228.2*
	\$20 to \$40	25	3.80											58.4	0.34											87.2
	\$40 to \$60	7	6.67											67.2	0.43											110.3
	\$60 & over	3	8.70											67.6	0.28											71.8
\$40 to \$60	Total (Average)	113	7.13											71.8	0.38											97.4
	Under \$20	16	6.63											66.8	0.66											169.2
	\$20 to \$40	48	6.33											63.7	0.34											87.2
	\$40 to \$60	23	7.55											76.0	0.35											89.7
	\$60 & over	26	8.44											85.0	0.28											71.8
\$60 to \$120	Total (Average)	102	9.80											98.7	0.42											107.7
	Under \$20	6	9.05											91.1	0.58											148.7
	\$20 to \$40	41	9.39											94.6	0.48											123.1
	\$40 to \$60	23	9.03											90.9	0.35											89.7
	\$60 & over	32	10.94											110.2	0.34											87.2
\$120 & over	Total (Average)	43	11.45											115.3	0.33											84.6
	Under \$20	2	17.20											173.2	0.41											105.1
	\$20 to \$40	6	8.94											90.0	0.39											100.0
	\$40 to \$60	10	12.68											127.7	0.42											107.7
	\$60 & over	25	10.22											102.9	0.26											66.7
				Average \$9.93										Average \$0.39												

*Full length not shown

TABLE 78

AVERAGE AMOUNT OF FLOOR SPACE PER STORE, FOR STORES CLASSIFIED BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE AND BY SIZE OF STORE, 1919

Amount of Rent per 100 sq. ft. of Floor Space	Classified Total Net Sales (in 000's)	Number of Stores	Total Floor Space (sq. ft.)	Average Floor Space per Store																
				Amount (sq. ft.)	Per Cent.															
					Graphic															
					0	20	40	60	80	100	120	140	160	180	200	220	240	Actual		
Total (Average)	Total (Average)	303	1,422,359	4,694																100.0
	Under \$40	45	97,716	2,171																46.3
	\$40 to \$80	113	347,999	3,080																65.6
	\$80 to \$160	102	511,239	5,012																106.8
	\$160 & over	43	465,405	10,823																230.6
Under \$20	Total (Average)	34	209,399	6,159																131.2
	Under \$40	10	33,498	3,350																71.4
	\$40 to \$80	16	94,172	5,886																125.4
	\$80 to \$160	6	44,709	7,452																158.8
	\$160 & over	2	37,020	18,510																394.3*
\$20 to \$40	Total (Average)	120	427,157	4,060																86.5
	Under \$40	25	46,871	1,876																40.0
	\$40 to \$80	48	140,326	2,923																62.3
	\$80 to \$160	41	240,855	5,876																125.2
	\$160 & over	6	59,105	9,851																209.9
\$40 to \$60	Total (Average)	63	325,335	5,164																110.0
	Under \$40	7	13,739	1,963																41.8
	\$40 to \$80	23	62,909	2,735																58.3
	\$80 to \$160	23	105,123	4,571																97.4
	\$160 & over	10	143,564	14,356																505.8*
\$60 & over	Total (Average)	66	400,468	4,657																99.2
	Under \$40	3	3,608	1,203																25.6
	\$40 to \$80	26	50,592	1,946																41.5
	\$80 to \$160	32	120,552	3,767																80.3
	\$160 & over	25	225,716	9,029																192.4

Average 4,694

* Full length not shown

which sell least have an average selling expense of \$5.80, and those which sell most have a selling expense of \$8.94. That is, the tendency, with a single exception, is for the amounts to increase as the stores increase in size. The conditions observed for this single group of stores, classified by the amount of rent paid per 100 square feet of floor space, also characterize all the stores when they are classified into groups by size. How nearly the conditions are duplicated for the different groups may be observed by comparing the detail in Table 80.

The full meaning, however, of Tables 76 to 80, inclusive, has not been brought out in the foregoing summary and it is necessary to consider further certain of the details.

From Table 76 it will be observed that the larger the store in terms of sales, the smaller the floor space required per \$100 of sales. For those selling least—under \$40,000—the amount is 6.98 square feet, and for those selling most—\$180,000 and over—the amount is 2.85. Between these limits, the amounts decrease as the stores increase in size. However, as is shown in Table 77, the amounts of selling expense per \$100 of total net sales increase as the stores increase in size. This is in keeping with the conclusions previously reached at various places. When the selling expense per \$100 of total net sales is determined for the amount sold per square foot of floor space,* as in the columns

in Table 77 bearing this caption, it will be seen that, as the stores increase in size, there is a tendency for the amounts to decrease. That is, a relationship inverse to that found for selling expense in terms of sales alone, characterizes the stores. Moreover, a similar inverse relationship holds within each size-group in relation to the rent paid per 100 square feet of floor space. To illustrate this inverse tendency, stores with annual sales of \$40,000 to \$80,000 may again be chosen. It costs in selling expense per \$100 of total net sales, on the average, for this group, \$7.13. The amounts increase as the stores increase their rent payment per square foot. When the amounts of selling expense per \$100 of total net sales are shown for the amounts sold per square foot of floor space, the average becomes \$0.38. The amounts, however, measured in this unit, decrease as the stores increase their rent payments per unit of space. This seems to show that high rental is expensive in terms of selling expense per \$100 of sales, but cheap in terms of selling expense per \$100 of total net sales for the amount sold per square foot on this space. In other words, the sales are enough larger on the high rental, as compared with those on the low rental space, to convert high selling expense in terms of sales to low selling expense in terms of sales per amount sold for each square foot.

For purposes of illustration, stores with sales of \$40,000 to \$80,000 were used, but any of the groups might

* The method by which this unit is computed is explained on page 4, item 25.

TABLE 79

TOTAL NET SALES, FLOOR SPACE, AND AMOUNT OF FLOOR SPACE PER \$100 OF TOTAL NET SALES, FOR STORES CLASSIFIED BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE AND BY SIZE OF STORE, 1919

Amount of Rent per 100 sq. ft. of Floor Space	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Floor Space (sq. ft.)	Floor Space per \$100 of Total Net Sales															
					Amount (sq. ft.)	Per Cent.														
						Graphic														Actual
					0	20	40	60	80	100	120	140	160	180	200	220	240			
Total (Average)	Total (Average)	303	\$56,193,718	1,422,359	3.93															100.0
	Under \$40	45	1,399,886	97,716	6.98															177.6
	\$40 to \$80	113	6,500,336	347,999	5.35															136.1
	\$80 to \$180	102	11,966,362	611,239	4.27															108.7
	\$180 & over	43	16,307,134	465,405	2.85															72.5
Under \$20	Total (Average)	54	3,512,144	209,599	5.96															151.7
	Under \$40	10	275,510	33,498	12.16															309.4*
	\$40 to \$80	16	949,525	94,172	9.93															252.7
	\$80 to \$180	6	700,907	44,709	5.58															162.3
	\$180 & over	2	1,667,302	37,020	2.33															59.3
\$20 to \$40	Total (Average)	120	9,457,372	487,157	5.15															131.0
	Under \$40	25	797,840	46,871	5.87															149.4
	\$40 to \$80	48	2,645,807	140,326	5.31															135.1
	\$80 to \$180	41	4,643,255	240,865	5.19															132.1
	\$180 & over	6	1,372,470	59,105	4.31															109.7
\$40 to \$60	Total (Average)	63	8,649,576	325,335	3.76															95.7
	Under \$40	7	212,908	13,739	6.46															164.4
	\$40 to \$80	23	1,366,387	68,909	4.60															117.0
	\$80 to \$180	23	2,707,107	105,123	3.88															98.7
	\$180 & over	10	4,363,274	143,564	3.29															83.7
\$60 & over	Total (Average)	86	14,574,626	400,468	2.75															70.0
	Under \$40	3	113,728	3,608	3.17															80.7
	\$40 to \$80	26	1,541,617	50,592	3.28															83.5
	\$80 to \$180	32	3,935,193	120,562	3.06															77.9
	\$180 & over	25	6,904,098	225,716	2.51															63.9

Average 3.93

*Full length not shown

have been studied with similar results. It is worth while for the reader to study the detail of Table 77, more particularly those showing the selling expense in terms of the extent to which the space is used.

It is also of interest to consider

further than has been done in the preceding statement, the details of Tables 79 and 80. In Table 79 the amounts of floor space required per \$100 of total net sales decrease as the amounts of rent paid per 100 square feet of floor space increase. For the

stores paying less than \$20 per 100 square feet of floor space, the amount of floor space required for each \$100 of total net sales is 5.96 square feet, and from this as a maximum the amounts decrease to 5.15, when \$20 to \$40 are paid in rent per 100 square feet of floor space, and to 3.76 and 2.75, respectively, when the amounts of rent per 100 square feet of floor

space are \$40 to \$60, and \$60 and over. Moreover, for stores with a given amount of rent per 100 square feet of floor space, the amounts of floor space required for each amount of sales decreases as the stores increase in size.

Table 80 shows for stores classified by the amounts paid for rent per 100 square feet of floor space and by size,

TABLE 80

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER SALES PER SQUARE FOOT OF FLOOR SPACE, FOR STORES CLASSIFIED BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE AND BY SIZE OF STORE, 1919

Amount of Rent per 100 sq. ft. of Floor Space	Classified Total Net Sales (in 000's)	Number of Stores	Selling Expense per \$100 of Total Net Sales										Selling Expense per \$100 of Total Net Sales per Sales per Square Foot of Floor Space													
			Amount	Per Cent.										Amount	Per Cent.										Actual	
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	160	180	0	20	40	60	80	100	120	140	160	180			
Total (Average)	Total (Average)	563	\$9.93											100.0	\$0.59											100.0
	Under \$40	45	6.46											65.1	0.46											115.4
	\$40 to \$80	113	7.15											71.8	0.58											97.4
	\$80 to \$120	102	9.80											96.7	0.42											107.7
	\$120 & over	43	11.45											115.5	0.55											84.6
Under \$20	Total (Average)	34	11.94											120.2	0.71											182.1
	Under \$40	10	7.50											75.5	0.89											228.2*
	\$40 to \$80	16	6.65											66.8	0.66											169.2
	\$80 to \$120	6	9.05											91.1	0.58											146.7
	\$120 & over	2	17.20											175.2	0.41											105.2
\$20 to \$40	Total (Average)	120	8.17											82.3	0.42											107.7
	Under \$40	25	5.80											58.4	0.54											87.2
	\$40 to \$80	48	6.53											65.7	0.54											87.2
	\$80 to \$120	41	9.39											94.6	0.48											125.1
	\$120 & over	6	8.94											90.0	0.39											100.0
\$40 to \$60	Total (Average)	65	10.58											106.5	0.40											102.6
	Under \$40	7	6.67											67.2	0.43											110.5
	\$40 to \$80	23	7.85											76.0	0.55											89.7
	\$80 to \$120	23	9.05											90.9	0.56											89.7
	\$120 & over	10	12.68											127.7	0.42											107.7
\$60 & over	Total (Average)	86	10.21											102.8	0.28											71.9
	Under \$40	3	8.70											87.6	0.28											71.9
	\$40 to \$80	26	8.44											85.0	0.28											71.9
	\$80 to \$120	32	10.94											110.2	0.54											87.2
	\$120 & over	25	10.62											102.9	0.26											66.7

Average \$9.93

Average \$0.59

* Full length not shown

the amounts of selling expense expressed first, in terms of sales, and second, in terms of sales for the amount sold per square foot of floor space. When the stores are grouped without regard to size, the amounts of selling expense on the whole tend neither to increase nor to decrease consistently as the amounts of rent paid per 100 square feet of floor space increase. When the stores with a given amount of rental are classified by size, however, the amounts clearly increase for each group and for the total. The amounts of selling expense per \$100 of total net sales for the amount sold per square foot of floor space, however, decrease as the amounts of rent paid per 100 square feet of floor space increase, and they also tend to decrease with a given amount of rent paid as the stores increase in size. That is, with a given rent the stores which have high selling expense per \$100 of total net sales have relatively low selling expense in terms of sales for the amount sold on each square foot of space used.

Tables 77 and 80 deserve more attention than can be devoted to them at this place. Moreover, the discussion in Volumes II and VI of the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*, which relate, respectively, to the amounts of rent and to floor space, should be considered in connection with this topic.

Two types of facts to which attention has been called at various places in the discussion result from an

analysis of these tables. The tables show first, the actual amounts of floor space used in terms of sales, and the amounts of selling expense per \$100 of total net sales and per \$100 of total net sales for the amount sold per 100 square feet of floor space for stores classified by size and by expenditures for rent. Second, they show the relationships of these amounts under the conditions established. That is, both standards of expense distribution and tendencies for these standards to vary are determined.

B.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales for Stores Classified by Size of City in Which Located, 1919.*

The amount paid for rent is obviously determined largely by the size of the city, the type of the building used, the location, and other considerations, attention to which is given in Volume II of the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*. It is unnecessary to repeat what is said there or to duplicate the tables. Because of the relation of store rent to size of city, it is thought worth while, in the analysis of selling expense, for stores paying different amounts of rent per 100 square feet of floor space, to classify them according to their city location. This is done for 303 stores in Tables 81 and 82 in which two city-groups are used—those with

* Population figures are for 1920.

population under 40,000 and those with population of 40,000 and over.

The 225 stores shown in Table 81, located in the small cities, utilized, on the average, 3,828 square feet of floor space, while the 78 in the large cities utilized 7,194. In terms of \$100 of sales, however, the stores in the small cities used 4.79 square feet and those in the large cities, 3.08. Within each city-group, both the amounts of floor space per store and the amounts of floor space per \$100 of total net sales decrease as the amounts of rent paid per 100 square feet of floor space

increase. That is, the condition within the city-groups is not different from that for the stores when no distinction is made according to location.

Table 82 shows that in the 225 stores located in the small cities it cost, on the average, \$8.29 to sell \$100 worth of goods. For the stores in the large cities the corresponding amount was \$11.56. That is, it costs \$3.27 more on the average in the large than in the small cities. However, when the amounts of selling expense for the stores in the two city-groups are expressed in terms of sales for the

TABLE 81

TOTAL NET SALES, TOTAL FLOOR SPACE, AND AMOUNT OF FLOOR SPACE PER \$100 OF TOTAL NET SALES, FOR STORES CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Size of City (in 000's)	Amount of Rent per 100 sq. ft. of Floor Space	Number of Stores	Total Net Sales	Total Floor Space (sq. ft.)	Floor Space per \$100 of Total Net Sales												
					Amount (sq. ft.)	Per Cent.											
						Graphic											
						0	20	40	60	80	100	120	140	160	180	200	Actual
Total (Average)	Total (Average)	303	\$36,193,718	1,422,359	3.93												100.0
	Under \$20	34	3,512,144	209,399	5.96												151.7
	\$20 to \$40	120	9,457,372	487,157	5.15												131.0
	\$40 to \$60	63	8,649,576	325,335	3.76												95.7
	\$60 & over	85	14,574,626	400,468	2.75												70.0
Under 40	Total (Average)	225	17,979,319	861,192	4.79												121.9
	Under \$20	32	1,924,842	172,379	8.96												228.0*
	\$20 to \$40	110	8,345,567	404,414	4.85												123.4
	\$40 to \$60	51	4,795,540	194,420	4.05												103.1
	\$60 & over	32	2,912,370	89,979	3.09												78.6
40 and over	Total (Average)	78	18,215,399	561,167	3.08												78.4
	Under \$20	2	1,587,302	37,020	2.33												59.3
	\$20 to \$40	10	1,111,905	82,743	7.44												189.3
	\$40 to \$60	12	3,854,036	130,915	3.40												86.5
	\$60 & over	54	11,662,256	310,499	2.66												67.7

Average 3.93

*Full length not shown

amounts sold per square foot of floor space, the disadvantage accompanying the stores in the large cities is converted into an advantage, the amounts for the stores in the small and the large cities being, respectively, \$0.40 and \$0.36. While there is a general tendency for the selling expenses per \$100 of total net sales, for the stores in the two groups of cities, to increase as the amounts of rent paid per 100 square feet of floor space increase, an inverse tendency holds when the selling expenses are expressed in terms of sales for the amount sold per square foot of floor space. For the stores in the small cities which paid less than \$20 in

rent per 100 square feet of floor space, the selling expense, in the more refined unit, is \$0.68, and from this as a maximum it decreases to \$0.26 for the stores paying \$60 and over in rent. A similar, but less certain tendency characterizes the selling expense, similarly expressed, of the stores in the large cities. It is unnecessary to comment further on Tables 81 and 82. The reader's attention is called to similar tendencies as shown in Tables 76 and 77 and to that part of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing* which deals with the effect of location on rent.

TABLE 82

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER SALES PER SQUARE FOOT OF FLOOR SPACE, FOR STORES CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Size of City (in 100's)	Amount of Rent per 100 sq. ft. of Floor Space	Number of Stores	Selling Expense per \$100 of Total Net Sales							Selling Expense per \$100 of Total Net Sales per Sale per Square Feet of Floor Space														
			Amount	Per Cent.						Amount	Per Cent.													
				Graphic							Graphic													
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	160	180	200	Actual
Total (Average)	Total (Average)	303	\$9.95							100.0	\$0.59													100.0
	Under \$20	34	11.94							120.2	0.71													182.1
	\$20 to \$40	120	8.17							82.3	0.42													107.7
	\$40 to \$60	63	10.58							105.5	0.40													105.6
	\$60 & over	86	10.21							109.8	0.38													71.8
Under 40	Total (Average)	225	8.29							83.5	0.40													102.6
	Under \$20	32	7.60							76.5	0.58													174.4
	\$20 to \$40	110	7.92							79.8	0.38													97.4
	\$40 to \$60	51	9.16							92.2	0.37													94.9
	\$60 & over	32	8.37							84.3	0.26													55.7
40 and over	Total (Average)	76	11.56							116.4	0.36													98.3
	Under \$20	2	17.20							172.2*	0.40													102.6
	\$20 to \$40	10	10.03							101.0	0.74													169.7
	\$40 to \$60	12	12.35							124.4	0.42													107.7
	\$60 & over	54	10.67							107.5	0.28													71.8
			Average \$9.93							Average \$0.59														

* Full length not shown

C.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales for Stores Classified by Size and by Size of City in Which Located, 1919.*

In the discussion of Tables 81 and 82 of the relation of the amounts of selling expense per \$100 of sales to expenditures for rent per unit of floor space, no distinction was made for stores of different size. The Bureau's study referred to above and the discussion on pages 127 to 138 of this volume show conclusively that both the size of store and the size of the city in which the stores are located are important factors in determining the rent paid per square foot of floor space. In keeping with this finding it has been thought worthwhile to study in detail the operations of 87 stores with annual sales between \$40,000 and \$80,000 in 1919 and located in cities with population under 40,000, classified according to the amount of rent paid per 100 square feet of floor space. This is done for two reasons: First, to establish expense and operation standards and second, to determine the direction of change in these standards in stores according to their rental expenditures and locations. The stores are so classified in Table 83.

It is necessary to remind the reader that it is not contended that the different conditions of operation necessarily stand in the relation of cause and effect. To establish conclusively a causal connection, would obviously

require a more elaborate analysis than that which is made. It is of interest, however, to observe the association between the different amounts of expenditure and the operating conditions for the stores classified in this way, inasmuch as the merchant who desires may compare the results of his own operations with those here set out when the conditions are duplicated.

It is sufficient in explanation of this table to call attention briefly under specific headings to certain tendencies shown. As the amounts of rent paid per 100 square feet of floor space increase,

1. The amounts of floor space per store decrease.
2. The amounts of floor space per \$100 of total net sales decrease.
3. The rent paid per \$100 of total net sales increases.
4. The sales per store remain essentially constant.
5. The sales per 100 square feet of floor space increase.
6. The sales per sales-person decrease.
7. The amounts of selling expense per \$100 of total net sales increase.
8. The amounts of selling expense per \$100 of total net sales per stock turnover increase.
9. The amounts of selling expense per \$100 of total net sales per \$1,000 sold per person increase with a single exception.
10. The amounts of selling expense per \$100 of sales per amount sold

* Population figures are for 1920.

per square foot of floor space decrease.

11. The amounts of total expense per \$100 of total net sales increase.
12. The rates of stock turnover on the whole decrease, although the tendency, in some respects, is uncertain.
13. The amounts of gross margin per \$100 of total net sales generally decrease.

feet increases. This holds for all stores and for stores classified by size.

- (2). The higher the rent, the smaller is the amount of floor space used for each \$100 of sales by stores of a given size as well as by all stores.
- (3). For stores of a given size, the amounts of selling expense

TABLE 83

RATIOS OF OPERATION IN STORES HAVING SALES FROM \$40,000 TO \$80,000, LOCATED IN CITIES WITH POPULATION UNDER 40,000 AND CLASSIFIED BY AMOUNTS OF RENT PAID PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Rent per 100 sq. ft. of Floor Space	Number of Stores	Floor Space (sq. ft.)		Rent per \$100 of Total Net Sales	Total Net Sales			Selling Expense per \$100 of Total Net Sales			Total Expense per \$100 of Total Net Sales	Rate of Stock Turnover	Gross Margin per \$100 of Total Net Sales*	Net Profit	
		Per Store	Per \$100 of Total Net Sales		Per Store	Per 100 sq. ft. of Floor Space	Per Full-time Sales-person	Amount	Per Stock Turnover	Per \$1,000 of Sales per Full-time Sales-person	Per Sales per sq. ft. of Floor Space			Per \$100 of Total Net Sales*	Per Store*
Total (Average)	87	3,746	5.75	\$1.02	\$56,456	\$1,739	\$16,427	\$7.37	\$4.34	\$0.45	\$0.42	\$17.20	1.7	100.0	100.0
Under \$20	13	3,671	10.96	1.20	56,203	992	18,909	6.56	3.28	0.35	0.66	13.63	2.0	99.0	115.4
\$20 to \$40	43	3,076	5.62	1.64	54,722	1,779	16,793	6.92	4.35	0.41	0.39	17.40	1.6	105.0	102.3
\$40 to \$60	17	2,766	4.53	2.13	61,004	2,705	15,251	9.36	4.66	0.35	0.36	17.80	1.6	97.1	91.7
\$60 and over	14	2,101	3.72	3.09	56,423	2,604	15,220	6.14	5.09	0.54	0.30	19.11	1.5	95.9	79.2

*Index, Average=100

14. The amounts of net profit per \$100 of total net sales decrease.
15. The amounts of net profit per store decrease.

The amounts of expense items and the ratios of operation for these stores, as well as the certainty or uncertainty for the amounts to increase or decrease, may be observed by consulting the table.

D.—Summary.

- (1). The average amounts of floor space used per store decrease as the rent per 100 square

per \$100 of total net sales increase, and the amounts in terms of sales for each square foot decrease, as the rent per square foot of floor space increases.

- (4). For stores with a given rental per square foot, the amounts of selling expense per \$100 of total net sales increase, while in terms of \$100 sales for the amount sold per square foot, they decrease as the stores increase in size.

(5). For stores with a given amount of rent per square foot of floor space, when considered without regard to the size of store, selling expenses, in terms of sales are higher for stores in large than for stores in small cities.

(2)—YEARLY AMOUNTS OF SELLING EXPENSE IN RELATION TO INVESTMENTS IN FIXTURES PER \$100 OF TOTAL NET SALES.

Another method of analyzing the amounts of selling expense for stores under different conditions of operation consists in classifying the stores according to their investments in fixtures. These investments, moreover, may be expressed in terms of sales and in terms of square feet of floor space. The present discussion has to do with the selling expense of a group of identical stores from year to year and with a somewhat larger number of stores for 1919, when they are studied from the point of view of the amount invested in fixtures per \$100 of total net sales.

A.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, 1919, 1918, and 1914.

For a year-to-year comparison of selling expense per \$100 of total net sales, for stores with different amounts invested in fixtures in relation to sales, the records of 135 stores are available for 1914, 1918, and 1919. For these stores, considered as a





















whole, the amounts decreased between 1914 and 1918, and 1918 and 1919, as shown in Table 84. Moreover, the amounts decrease from year to year for each group of stores when classified by the amount invested in fixtures in relation to sales. When the stores in each year are classified in this manner, there is a general but not uniform tendency for the amounts in terms of sales to increase as investments in fixtures increase. Whether this may be attributed to the amount of the fixture investment or to the size of the store, or to some other factor, will be considered later.

When the same group of stores is classified for each year and for the combined years according to the amount of selling expense per \$100 of total net sales, and the amounts invested in fixtures per \$100 of total net sales are determined for each group, as in Table 85, it is found that they decreased between 1914 and 1918, and 1918 and 1919. In 1914, the average amount invested in fixtures per \$100 of total net sales was \$6.61, in 1918 it was \$4.65, and in 1919, \$3.90. For the combined years, the average is \$4.70. Similar decreases occur from year to year for each group of stores when classified according to the amounts of selling expense per \$100 of total net sales. Accordingly, it follows that from year to year sales increased faster in all the stores and in each group, when classified by amounts of selling expense, than did investments in fixtures.

When the stores are classified in

TABLE 84

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, FOR 135 IDENTICAL STORES CLASSIFIED BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Fixture Account per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	405	\$40,576,908	\$4,428,098	\$10.91								100.0
	Under \$2	72	8,020,930	832,922	10.38								95.2
	\$2 to \$4	131	10,428,302	985,648	9.45								86.6
	\$4 to \$6	86	7,841,233	788,319	10.18								93.3
	\$6 & over	116	14,286,443	1,611,209	12.68								116.2
1919	Total (Average)	135	18,919,233	1,992,310	10.53								96.3
	Under \$2	38	5,228,703	535,232	10.24								93.9
	\$2 to \$4	51	4,897,266	428,443	8.75								80.2
	\$4 to \$6	23	3,173,841	326,474	10.29								94.3
	\$6 & over	23	5,619,423	702,161	12.50								114.6
1918	Total (Average)	135	13,360,145	1,473,360	11.03								101.1
	Under \$2	20	2,163,476	244,748	11.31								103.7
	\$2 to \$4	45	3,706,654	370,532	10.00								91.7
	\$4 to \$6	34	2,807,944	267,521	9.53								87.4
	\$6 & over	36	4,682,071	590,559	12.61								115.6
1914	Total (Average)	135	8,297,530	962,428	11.60								106.3
	Under \$2	14	828,751	52,942	8.42								77.2
	\$2 to \$4	35	1,824,382	186,673	10.23								93.8
	\$4 to \$6	29	1,859,448	204,324	10.99								100.7
	\$6 & over	57	3,984,949	518,489	13.01								119.2
Average \$10.91													

each year according to the amounts of selling expense per \$100 of total net sales, the corresponding amounts of fixture investments, similarly measured, increase as the amounts of selling expense increase. That is, the stores having large selling expense in relation to sales also have large in-

vestments in fixtures, similarly measured.

It is of interest, when the 135 stores are classified according to their investment in fixtures, to express the amounts of selling expense in terms of total expense. This is done in Table 86. From year to year, the

amounts of selling expense constitute increasing proportions of total expense. In 1914, \$49.11 out of every \$100 of total expense was due to selling, in 1918 the amount was \$50.35, and in 1919, \$51.63. For the combined years the average amount was \$50.63. Similar increases from year to year, with some rather large irregularities, moreover, characterize each group of stores when classified by the amounts of fixture investment in relation to sales. How nearly this is true may be observed by consulting Table 86.

When the stores in each of the years are classified by the amounts invested in fixtures per \$100 of total net sales, there seems to be no unmistakable direction of change from group to group in the relation of selling expense to total expense. Presumably, factors other than the amounts invested in fixtures help to determine the relation between the total expense and its constituent element, selling expense. Further consideration is given to this topic when the same stores are classified according to size.

TABLE 85

TOTAL NET SALES, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, FOR 135 IDENTICAL STORES CLASSIFIED BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Selling Expense per \$100 of Total Net Sales	Number of Store-years	Total Net Sales	Amount of Fixture Account	Amount of Fixture Account per \$100 of Total Net Sales												
					Amount	Per Cent.											
						Graphic											Actual
0 20 40 60 80 100 120 140 160 180 200																	
Total (Average)	Total (Average)	405	\$40,576,908	\$1,908,079	\$4.70												100.0
	Under \$6	87	4,077,823	142,121	3.49												74.3
	\$6 to \$12	219	24,012,511	1,058,434	4.41												93.8
	\$12 & over	99	12,486,574	707,524	5.67												120.6
1919	Total (Average)	135	18,919,233	733,774	3.90												83.0
	Under \$6	36	2,251,346	66,112	2.94												62.6
	\$6 to \$12	69	11,282,916	450,815	4.00												85.1
	\$12 & over	30	5,384,971	221,847	4.12												87.7
1918	Total (Average)	135	13,360,145	620,889	4.65												98.9
	Under \$6	28	1,138,407	52,331	4.60												97.9
	\$6 to \$12	76	8,472,898	333,973	4.53												96.4
	\$12 & over	31	3,748,840	184,585	4.92												104.7
1914	Total (Average)	135	8,297,530	548,416	6.61												140.6
	Under \$6	23	688,070	23,678	3.44												73.2
	\$6 to \$12	74	4,256,697	223,646	5.25												111.7
	\$12 & over	38	3,352,763	301,092	8.98												191.1
Average \$4.70																	



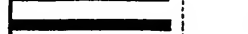












B.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, for Stores Classified by Size, 1919, 1918, and 1914.

For the year 1919 alone the records of 303 stores are available for the study of the relation of selling ex-

pense to sales according to the relative amount invested in fixtures in terms of sales. Table 87 summarizes the conditions for these stores for this year. From group to group, according to size, the amounts of selling expense per \$100 of total net sales increase. This is the familiar tendency so often observed. The actual

TABLE 86

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, FOR 135 IDENTICAL STORES CLASSIFIED BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Fixture Account per \$100 of Total Net Sales	Number of Store- years	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense											
					Amount	Per Cent.										
						Graphic										Actual
0 20 40 60 80 100 120 140																
Total (Average)	Total (Average)	405	\$8,745,211	\$4,428,098	\$50.63											100.0
	Under \$2	72	1,483,750	832,922	56.14											110.9
	\$2 to \$4	131	2,110,950	985,648	46.69											92.2
	\$4 to \$6	86	1,692,296	798,319	47.17											93.2
	\$6 & over	116	3,458,215	1,811,209	52.37											103.4
1919	Total (Average)	135	3,859,150	1,992,310	51.63											102.0
	Under \$2	38	955,292	535,232	56.03											110.7
	\$2 to \$4	51	956,647	428,443	44.79											88.5
	\$4 to \$6	23	626,216	326,474	52.13											103.0
	\$6 & over	23	1,320,895	702,161	53.16											105.0
1918	Total (Average)	135	2,926,234	1,473,360	50.35											99.4
	Under \$2	20	395,711	244,748	61.85											122.2
	\$2 to \$4	45	782,689	370,532	47.34											93.5
	\$4 to \$6	34	629,157	267,521	42.52											84.0
	\$6 & over	36	1,118,677	560,559	51.79											104.3
1914	Total (Average)	135	1,959,827	962,428	49.11											97.0
	Under \$2	14	132,747	52,942	39.68											79.8
	\$2 to \$4	35	371,614	186,673	50.23											99.2
	\$4 to \$6	29	436,823	204,324	46.78											92.4
	\$6 & over	57	1,018,643	519,489	50.90											100.5

Average \$50.63

amounts will vary from group to group depending upon the number and the size of the stores included, so that precise agreement between the figures for this number of stores and those for another is not to be expected.

When the stores are classified according to size and investments in fixtures, as in Table 87, the amounts of selling expense per \$100 of total net sales increase with the investment in fixtures so stated. To this general rule there are but three exceptions. The actual amounts for a single group of stores, classified by size, may be used to illustrate this tendency.

The average amount of selling expense per \$100 of total net sales for the stores with annual sales of \$40,000 to \$80,000 is \$7.13. For the 28 stores with this amount of sales, which had average fixture investments per \$100 of total net sales of less than \$2, the corresponding amount was \$5.87. From this as a minimum, the amounts increase as the fixture investments in relation to sales increase, until the investment of \$4 to \$6 is encountered. For the 17 stores in this group, the average amount is \$9.41. For those having the largest investments in fixtures in relation to sales, the amount is \$6.79. That is, it is noticeably less than for any group except the first. Generally speaking, however, the larger the amount invested in fixtures per \$100 of total net sales, the higher the amount of selling expense, similarly expressed. How nearly this condition obtains for each group of

















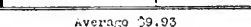
stores may be seen by consulting Table 87.

When the 303 stores are classified by size and by the amounts of their selling expense per \$100 of total net sales, there is an unmistakable tendency, as revealed in Table 88, for the amounts invested in fixtures in relation to sales to increase as selling expenses, similarly measured, increase. It should be remembered that the stores with large selling expense are generally large stores, and it might be inferred that the direct relationship between the amounts of selling expense and the amounts invested in fixtures, both expressed in terms of sales, is due largely, if not solely, to the size of the stores included. This, however, does not seem to be the case. It will be observed, if stores of essentially the same size are compared in this respect, that, in every size-group the investments in fixtures in relation to sales are relatively highest for the stores having the highest selling expense expressed in sales. The explanation for this relationship must be sought in some factor other than store size. Further light on this problem is found in the discussion having to do with investments in fixtures per 100 square feet of floor space.

Confirmation of the tendency for the amounts of selling expense to increase with the size of the fixture investment per \$100 of total net sales is contained in Tables 89 to 92, inclusive, which relate, respectively, to the combined and to the individual years, 1919, 1918, and 1914.

TABLE 87

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales									
					Amount	Per Cent.						Actual		
						Graphic								
					0	20	40	60	80	100	120	140	160	
Total (Average)	Total (Average)	303	\$36,193,718	\$3,595,401	\$9.93							100.0		
	Under \$2	89	10,793,092	984,379	9.12							91.8		
	\$2 to \$4	120	11,972,443	1,083,537	9.05							91.1		
	\$4 to \$6	46	4,736,999	469,533	9.91							99.9		
	\$6 & over	48	8,691,184	1,057,952	12.17							122.6		
Under \$40	Total (Average)	45	1,399,886	90,453	6.46							65.1		
	Under \$2	10	323,183	14,975	4.63							46.6		
	\$2 to \$4	16	488,941	30,114	6.16							62.0		
	\$4 to \$6	9	283,784	21,226	7.48							75.3		
	\$6 & over	10	303,978	24,139	7.94							80.0		
\$40 to \$80.	Total (Average)	113	6,500,356	463,566	7.13							71.8		
	Under \$2	28	1,609,446	94,543	5.87							59.1		
	\$2 to \$4	57	3,371,123	240,121	7.12							71.7		
	\$4 to \$6	17	981,374	92,359	9.41							94.8		
	\$6 & over	11	538,393	36,543	6.79							68.4		
\$80 to \$180	Total (Average)	102	11,986,362	1,174,364	9.80							98.7		
	Under \$2	36	4,187,940	401,886	9.60							96.7		
	\$2 to \$4	36	4,268,220	388,373	9.10							91.6		
	\$4 to \$6	15	1,658,547	176,478	10.64							107.2		
	\$6 & over	15	1,871,655	207,627	11.09							111.7		
\$180 & over	Total (Average)	43	16,307,134	1,867,010	11.45							115.3		
	Under \$2	15	4,672,523	472,075	10.12							101.9		
	\$2 to \$4	11	3,844,159	424,929	11.05							111.3		
	\$4 to \$6	5	1,813,294	179,470	9.90							99.7		
	\$6 & over	12	5,977,158	789,644	13.21							133.0		

Average 99.93

Average 99.93

In Table 89, the records of 135 identical stores for the years 1919, 1918, and 1914, combined, are studied in the particular mentioned. In each of the size-groups, with two exceptions, the amounts of selling expense vary

directly with the investment in fixtures when both are measured in terms of sales. For the different store-groups, the average is largest for the stores having the largest investment in fixtures. This is particularly




















noticeable for the stores with annual sales of \$40,000 to \$80,000. The 20 stores which had less than \$2 invested in fixtures per \$100 of total net sales had selling expense of \$7.11 so measured. From this amount as a minimum, the amounts increase to \$11.85 as a maximum for the stores with investment of \$6 and over for every \$100 of goods sold. It is unnecessary, in view of the preceding discussion for the 303 stores for 1919 to com-

ment further upon the actual amounts of selling expense, or upon the tendencies of change from store-group to store-group. Table 89 may be consulted in this connection.

Table 90, which is based upon the records for 135 stores for 1919, confirms in a striking way the details for the 303 stores analyzed in Table 87. How different the actual amounts are in this year from those for the years 1914 and 1918 may be determined by

TABLE 88

TOTAL NET SALES, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Amount of Fixture Account	Amount of Fixture Account per \$100 of Total Net Sales															
					Amount	Per Cent.														
						Graphic														Actual
					0	20	40	60	80	100	120	140	160	180	200	220	240			
Total (Average)	Total (Average)	303	\$36,193,718	\$1,326,406	\$3.66															100.0
	Under \$6	85	5,305,471	139,386	2.63															71.9
	\$6 to \$12	163	21,034,328	767,735	3.65															99.7
	\$12 & over	55	9,853,919	419,285	4.26															116.4
Under \$40	Total (Average)	45	1,399,886	56,181	4.01															109.6
	Under \$6	20	599,760	17,694	3.00															82.0
	\$6 to \$12	22	735,802	32,360	4.40															120.2
	\$12 & over	3	74,324	6,127	8.24															225.1
\$40 to \$80	Total (Average)	113	6,600,336	209,385	3.22															88.0
	Under \$6	49	2,753,742	78,399	2.85															77.9
	\$6 to \$12	54	3,140,646	105,227	3.35															91.5
	\$12 & over	10	605,948	25,759	4.25															116.1
\$80 to \$180	Total (Average)	102	11,986,362	408,538	3.41															93.2
	Under \$6	15	1,489,752	35,454	2.38															65.0
	\$6 to \$12	61	7,335,416	247,450	3.37															92.1
	\$12 & over	26	3,161,194	125,634	3.97															108.5
\$180 & over	Total (Average)	43	16,307,134	652,302	4.00															109.3
	Under \$6	1	472,217	7,839	1.66															45.4
	\$6 to \$12	26	9,822,464	382,698	3.90															106.6
	\$12 & over	16	6,012,453	261,765	4.35															118.9

Average \$3.66

TABLE 89

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR 135 IDENTICAL STORES CLASSIFIED BY SIZE
AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL
NET SALES, 1919, 1918, AND 1914, COMBINED















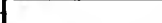




Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales									
					Amount	Per Cent.								Actual
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	405	\$40,576,908	\$4,428,098	\$10.91									100.0
	Under \$2	72	8,020,930	832,922	10.38									95.1
	\$2 to \$4	131	10,428,302	985,648	9.45									86.6
	\$4 to \$6	86	7,841,233	796,319	10.18									93.3
	\$6 & over	116	14,286,443	1,811,209	12.68									116.2
Under \$40	Total (Average)	112	3,119,809	263,714	8.45									77.5
	Under \$2	14	403,857	25,921	6.42									58.8
	\$2 to \$4	28	800,159	64,602	8.07									74.0
	\$4 to \$6	27	723,519	59,105	8.03									73.6
	\$6 & over	43	1,192,274	115,086	9.65									88.5
\$40 to \$80	Total (Average)	153	8,672,180	806,361	9.30									85.2
	Under \$2	20	1,107,291	78,674	7.11									65.2
	\$2 to \$4	63	3,755,597	314,078	8.36									76.6
	\$4 to \$6	31	1,653,451	158,149	9.56									87.6
	\$6 & over	39	2,155,841	255,461	11.85									108.6
\$80 to \$180	Total (Average)	99	11,411,444	1,253,879	10.99									100.7
	Under \$2	27	3,021,911	307,174	10.16									93.1
	\$2 to \$4	33	3,838,758	405,623	10.57									96.9
	\$4 to \$6	19	2,392,924	274,227	11.46									105.0
	\$6 & over	19	2,157,851	266,855	12.37									113.4
\$180 & over	Total (Average)	42	17,373,475	2,104,144	12.11									111.0
	Under \$2	11	3,487,871	421,153	12.07									110.6
	\$2 to \$4	7	2,033,788	201,345	9.90									90.7
	\$4 to \$6	9	3,071,339	307,839	10.02									91.8
	\$6 & over	15	8,780,477	1,173,807	13.37									122.5
Average \$10.91														

TABLE 90

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales	
					Amount	Per Cent.
						Graphic Actual
						0 20 40 60 80 100 120 140
Total (Average)	Total (Average)	135	\$18,919,233	\$1,992,310	\$10.53	100.0
	Under \$2	38	5,228,703	535,232	10.24	97.2
	\$2 to \$4	51	4,897,266	428,443	8.75	83.1
	\$4 to \$6	23	3,173,841	326,474	10.29	97.7
	\$6 & over	23	5,619,423	702,161	12.50	118.7
Under \$40	Total (Average)	12	374,325	24,945	6.66	63.2
	Under \$2	2	62,964	3,398	5.40	51.3
	\$2 to \$4	4	129,541	8,213	6.34	60.2
	\$4 to \$6	3	92,703	7,582	8.18	77.7
	\$6 & over	3	89,117	5,752	6.45	61.3
\$40 to \$80	Total (Average)	52	2,907,756	229,272	7.73	73.4
	Under \$2	8	470,684	29,603	6.31	59.9
	\$2 to \$4	29	1,658,927	118,454	7.14	67.8
	\$4 to \$6	8	431,726	43,053	9.97	94.7
	\$6 & over	8	406,419	38,072	9.37	89.0
\$80 to \$180	Total (Average)	49	5,603,210	587,583	10.49	99.6
	Under \$2	20	2,217,649	226,744	10.22	97.1
	\$2 to \$4	15	1,759,679	168,668	9.59	91.1
	\$4 to \$6	7	836,118	96,369	11.53	109.5
	\$6 & over	6	789,764	95,802	12.13	115.2
\$180 & over	Total (Average)	23	9,973,942	1,150,510	11.54	109.6
	Under \$2	8	2,477,406	275,397	11.12	105.6
	\$2 to \$4	4	1,349,119	133,108	9.87	93.7
	\$4 to \$6	5	1,813,294	179,470	9.90	94.0
	\$6 & over	6	4,334,123	562,535	12.98	123.3

Average \$10.53

consulting the tables applying to the respective years.

It should be remembered, while 135 identical stores are considered, that the same stores are not necessarily

found from year to year in either the same sales- or in the same fixture investment-group. Both sales and investments increased from year to year. Accordingly, in successive

TABLE 91

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales									
					Amount	Per Cent.						Actual		
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	135	\$13,360,145	\$1,473,360	\$11.03								100.0	
	Under \$2	20	2,163,476	244,748	11.31								102.5	
	\$2 to \$4	45	3,706,654	370,532	10.00								90.7	
	\$4 to \$6	34	2,807,944	267,521	9.53								86.4	
	\$6 & over	36	4,682,071	590,559	12.61								114.3	
Under \$40	Total (Average)	37	1,117,468	92,371	8.27								75.0	
	Under \$2	4	124,966	9,959	7.97								72.3	
	\$2 to \$4	8	269,792	19,976	7.40								67.1	
	\$4 to \$6	11	297,192	23,674	7.97								72.3	
	\$6 & over	14	425,518	39,762	9.11								82.6	
\$40 to \$80	Total (Average)	56	3,239,547	299,694	9.25								83.9	
	Under \$2	8	434,936	33,916	7.80								70.7	
	\$2 to \$4	22	1,335,132	121,256	9.08								82.3	
	\$4 to \$6	15	779,116	65,955	8.47								76.8	
	\$6 & over	11	690,363	78,567	11.38								103.2	
\$80 to \$180	Total (Average)	29	3,298,407	363,676	11.03								100.0	
	Under \$2	5	593,109	55,117	9.29								84.2	
	\$2 to \$4	12	1,417,061	161,063	11.37								103.1	
	\$4 to \$6	5	654,591	67,483	10.31								93.5	
	\$6 & over	6	633,646	80,013	12.63								114.5	
\$180 & over	Total (Average)	14	5,704,723	717,619	12.58								114.1	
	Under \$2	3	1,010,465	145,756	14.42								130.7	
	\$2 to \$4	3	684,669	68,237	9.97								90.4	
	\$4 to \$6	3	1,077,045	110,409	10.25								92.9	
	\$6 & over	5	2,932,544	393,217	13.41								121.6	

Average \$11.03

years, the same stores do not necessarily occupy the same position. In spite of this fact, however, it has been thought worth-while to include stores

the identity of which has remained the same.
 Further illustrating the actual investments in fixtures for stores when

TABLE 92

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales									
					Amount	Per Cent.							Actual	
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	135	\$8,297,530	\$962,428	\$11.60								100.0	
	Under \$2	14	628,751	52,942	8.42								72.6	
	\$2 to \$4	35	1,824,382	186,673	10.23								88.2	
	\$4 to \$6	29	1,859,448	204,324	10.99								94.7	
	\$6 & over	57	3,984,949	518,489	13.01								112.2	
Under \$40	Total (Average)	63	1,628,016	146,398	8.99								77.5	
	Under \$2	8	215,927	12,564	5.82								50.2	
	\$2 to \$4	16	400,826	36,413	9.08								78.3	
	\$4 to \$6	13	333,624	26,849	8.05								69.4	
	\$6 & over	26	677,639	70,572	10.41								89.7	
\$40 to \$80	Total (Average)	45	2,464,877	277,395	11.25								97.0	
	Under \$2	4	201,671	15,065	7.47								64.4	
	\$2 to \$4	13	761,538	74,368	9.77								84.2	
	\$4 to \$6	8	442,609	49,140	11.10								95.7	
	\$6 & over	20	1,059,059	138,822	13.11								113.0	
\$80 to \$180	Total (Average)	22	2,509,827	302,620	12.06								104.0	
	Under \$2	2	211,153	25,313	11.99								103.4	
	\$2 to \$4	6	662,018	75,892	11.46								98.8	
	\$4 to \$6	7	902,215	110,575	12.23								105.4	
	\$6 & over	7	734,441	91,040	12.40								106.9	
\$180 & over	Total (Average)	5	1,694,810	236,015	13.93								120.1	
	Under \$2	-	-	-	-								-	
	\$2 to \$4	-	-	-	-								-	
	\$4 to \$6	1	181,000	17,960	9.92								85.5	
	\$6 & over	4	1,513,810	218,055	14.40								124.1	
Average \$11.60														

classified by size and by selling expense per \$100 of total net sales, as shown in Table 88 for 303 stores, it is of interest to include Tables 93 to 96, inclusive, which refer, respectively, to the combined and to the individual years under discussion. From the details of these tables two facts stand

out. First, as the stores increase in size, the investments in fixtures per \$100 of total net sales tend, on the whole, to decrease. This condition characterizes the stores with annual sales less than \$180,000. The group of smallest stores, generally speaking, have the largest amounts invested in

TABLE 93

TOTAL NET SALES, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, FOR 135 IDENTICAL STORES CLASSIFIED BY SIZE AND BY SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914



















Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Amount of Fixture Account	Amount of Fixture Account per \$100 of Total Net Sales							
					Amount	Per Cent.						Actual
						Graphic						
						0	20	40	60	80	100	
Total (Average)	Total (Average)	405	\$40,576,908	\$1,908,079	\$4.70							100.
	Under \$6	87	4,077,823	142,121	3.49							74.3
	\$6 to \$12	219	24,012,511	1,053,434	4.41							93.8
	\$12 & over	99	12,436,574	707,524	5.67							120.6
Under \$40	Total (Average)	112	3,119,909	164,125	5.26							111.9
	Under \$6	38	1,054,506	45,919	4.35							92.6
	\$6 to \$12	56	1,552,624	88,366	5.69							121.1
	\$12 & over	18	512,679	29,840	5.82							123.8
\$40 to \$80	Total (Average)	153	8,672,180	377,800	4.36							92.8
	Under \$6	41	2,227,407	80,510	3.61							76.8
	\$6 to \$12	79	4,519,537	193,546	4.28							91.1
	\$12 & over	33	1,925,236	103,744	5.39							114.7
\$80 to \$120	Total (Average)	98	11,411,444	431,319	3.78							80.4
	Under \$6	8	795,910	15,692	1.97							41.9
	\$6 to \$12	56	6,722,694	252,060	3.75							79.8
	\$12 & over	34	3,892,640	163,567	4.20							89.4
\$120 & over	Total (Average)	42	17,373,475	934,835	5.30							114.5
	Under \$6	-	-	-	-							-
	\$6 to \$12	23	11,217,456	524,462	4.68							99.6
	\$12 & over	14	6,156,019	410,373	6.67							141.9
Average \$4.70												

fixtures in relation to their sales. To this rule, however, there are a few exceptions, due probably to the number and size of the stores included. Second, the amounts invested in fixtures in terms of sales are largest for the stores having large selling expense, similarly measured.

The amounts of selling expense may also be expressed in terms of total expense. This is done in Tables 97 to 100, inclusive, for stores classified by size and amount of investments in fixtures in terms of sales, for the combined and for the individual years. When the amounts are expressed in

TABLE 94

TOTAL NET SALES, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Amount of Fixture Account	Amount of Fixture Account per \$100 of Total Net Sales									
					Amount	Per Cent.						Actual		
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	135	\$18,919,233	\$738,774	\$3.90							100.0		
	Under \$6	36	2,251,346	66,112	2.94							75.4		
	\$6 to \$12	69	11,282,916	450,815	4.00							102.6		
	\$12 & over	30	5,384,971	221,847	4.12							105.6		
Under \$40	Total (Average)	12	374,325	16,697	4.46							114.4		
	Under \$6	5	140,498	5,462	3.89							99.7		
	\$6 to \$12	7	233,827	11,235	4.80							123.1		
	\$12 & over	-	-	-	-							-		
\$40 to \$80	Total (Average)	52	2,967,756	107,839	3.63							93.1		
	Under \$6	23	1,314,938	44,958	3.42							87.7		
	\$6 to \$12	21	1,203,620	41,606	3.46							88.7		
	\$12 & over	8	449,198	21,275	4.74							121.5		
\$80 to \$180	Total (Average)	48	5,603,210	175,362	3.13							80.3		
	Under \$6	8	795,910	15,692	1.97							50.5		
	\$6 to \$12	24	2,890,333	95,844	3.33							85.4		
	\$12 & over	16	1,926,967	63,826	3.31							84.9		
\$180 & over	Total (Average)	23	9,973,942	438,876	4.40							112.8		
	Under \$6	-	-	-	-							-		
	\$6 to \$12	17	6,965,136	302,130	4.34							111.3		
	\$12 & over	6	3,008,806	136,746	4.54							116.4		



















Average \$3.90

this form, for stores classified by size, there seems to be no unmistakable tendency for them in any one of the years to increase or to decrease with the amounts invested in fixtures per \$100 of total net sales. One would not be justified, from the data available in concluding that, proportionately,

selling expense becomes either a larger or smaller part of the total operating expense as the fixture investments in terms of sales increase. In some instances there is a decided tendency for the amounts to increase; in others, there is equally as clear a tendency for them to decrease. The

TABLE 95

TOTAL NET SALES, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Amount of Fixture Account	Amount of Fixture account per \$100 of Total Net Sales									
					Amount	Per Cent.						Actual		
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	135	\$13,360,145	\$620,689	4.65								100.0	
	Under \$6	28	1,138,407	52,331	4.60								98.9	
	\$6 to \$12	76	8,472,898	383,973	4.53								97.4	
	\$12 & over	31	3,748,840	184,585	4.92								105.8	
Under \$40	Total (Average)	37	1,117,468	62,352	5.58								120.0	
	Under \$6	13	371,155	20,150	5.43								116.8	
	\$6 to \$12	18	554,810	31,654	5.71								122.8	
	\$12 & over	6	191,503	10,548	5.51								118.5	
\$40 to \$80	Total (Average)	56	3,239,547	132,364	4.09								88.0	
	Under \$6	15	767,252	32,181	4.19								90.1	
	\$6 to \$12	30	1,741,593	68,060	3.91								84.1	
	\$12 & over	11	730,702	32,123	4.40								94.6	
\$80 to \$160	Total (Average)	28	3,298,407	127,804	3.87								83.2	
	Under \$6	-	-	-	-								-	
	\$6 to \$12	19	2,300,126	84,115	3.66								78.7	
	\$12 & over	9	998,281	43,689	4.38								94.2	
\$180 & over	Total (Average)	14	5,704,723	298,369	5.23								112.5	
	Under \$6	-	-	-	-								-	
	\$6 to \$12	9	3,876,369	200,144	5.16								111.0	
	\$12 & over	5	1,828,354	98,225	5.37								115.5	

Average 4.65



















results of the comparison are negative so far as direction of change is concerned. They are, however, not without value when thought of as standards or norms and, as such, constitute measures of the experience of the stores under consideration. They may be used by the individual merchant to check his own figures when the conditions set out in the tables are duplicated in his own experience.

C.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, for Stores Classified by Amounts of Inventory in Relation to Sales, 1919.

In the foregoing discussion of the relation of selling expense to sales and to total expense in stores with different amounts invested in fixtures

TABLE 96

TOTAL NET SALES, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Amount of Fixture Account	Amount of Fixture Account per \$100 of Total Net Sales													
					Amount	Per Cent.												Actual
						Graphic												
					0	20	40	60	80	100	120	140	160	180	200	220		
Total (Average)	Total (Average)	135	\$8,297,530	\$548,416	\$6.61													100.0
	Under \$6	23	688,070	23,678	3.44													52.0
	\$6 to \$12	74	4,256,697	223,646	5.25													79.4
	\$12 & over	38	3,352,763	301,092	8.98													135.9
Under \$40	Total (Average)	63	1,628,016	85,076	5.23													79.1
	Under \$6	20	542,853	20,307	3.74													56.6
	\$6 to \$12	31	763,987	45,477	5.95													90.0
	\$12 & over	12	321,176	19,292	6.01													90.9
\$40 to \$80	Total (Average)	45	2,464,977	137,597	5.58													84.4
	Under \$6	3	145,217	3,371	2.32													35.1
	\$6 to \$12	26	1,574,324	83,880	5.33													80.6
	\$12 & over	14	745,356	50,346	6.75													102.1
\$80 to \$180	Total (Average)	22	2,509,827	128,153	5.11													77.5
	Under \$6	-	-	-	-													-
	\$6 to \$12	13	1,542,435	72,101	4.67													70.7
	\$12 & over	9	967,392	56,052	5.79													87.6
\$180 & over	Total (Average)	5	1,654,610	197,590	11.66													176.4
	Under \$6	-	-	-	-													-
	\$6 to \$12	2	375,951	22,188	5.90													89.3
	\$12 & over	3	1,318,659	175,402	13.30													201.2

Average \$6.61

Average \$6.61

TABLE 97

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL EXPENSE, FOR 135 IDENTICAL STORES CLASSIFIED BY SIZE
AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL
NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Store- years	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense										
					Amount	Per Cent.									Actual
						Graphic									
						0	20	40	60	80	100	120	140		
Total (Average)	Total (Average)	405	\$3,745,211	\$4,428,098	\$50.63										100.0
	Under \$2	72	1,483,750	832,922	56.14										110.9
	\$2 to \$4	131	2,110,950	985,648	46.69										92.2
	\$4 to \$6	86	1,692,296	799,319	47.17										93.2
	\$6 & over	116	3,459,215	1,811,209	52.37										103.4
Under \$40	Total (Average)	112	628,514	263,714	41.96										82.9
	Under \$2	14	83,689	25,921	30.97										61.2
	\$2 to \$4	28	143,353	64,602	45.06										89.0
	\$4 to \$6	27	145,281	58,105	39.99										79.0
	\$6 & over	43	256,191	115,086	44.92										88.7
\$40 to \$30	Total (Average)	153	1,733,531	806,361	46.52										91.9
	Under \$2	20	174,700	78,674	45.03										86.9
	\$2 to \$4	63	728,539	314,078	43.11										85.1
	\$4 to \$6	31	334,351	158,148	47.30										93.4
	\$6 & over	39	495,941	255,461	51.51										101.7
\$30 to \$180	Total (Average)	98	2,420,053	1,255,879	51.81										102.3
	Under \$2	27	544,426	307,174	56.42										111.4
	\$2 to \$4	33	758,058	405,023	52.81										104.3
	\$4 to \$6	19	564,612	274,227	48.57										95.9
	\$6 & over	19	542,957	266,855	49.15										97.1
\$180 & over	Total (Average)	42	3,963,113	2,104,144	53.09										104.9
	Under \$2	11	680,935	421,153	61.85										122.2
	\$2 to \$4	7	471,000	201,345	42.75										84.4
	\$4 to \$6	9	648,052	307,939	47.50										93.8
	\$6 & over	15	2,165,126	1,173,807	54.26										107.2

Average \$50.63

TABLE 98

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL EXPENSE, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense								
					Amount	Per Cent.							
						Graphic							Actual
					0	20	40	60	80	100	120		
Total (Average)	Total (Average)	135	\$3,859,150	\$1,992,310	\$51.63								100.0
	Under \$2	38	955,292	535,232	56.03								108.5
	\$2 to \$4	51	956,647	428,443	44.79								86.8
	\$4 to \$6	23	626,316	326,474	52.13								101.0
	\$6 & over	23	1,320,895	702,161	53.16								103.0
Under \$40	Total (Average)	12	69,009	24,945	36.63								71.0
	Under \$2	2	17,342	3,393	19.59								37.9
	\$2 to \$4	4	17,578	8,213	46.72								90.5
	\$4 to \$6	3	15,763	7,582	48.10								93.2
	\$6 & over	3	17,322	5,752	33.21								64.3
\$40 to \$90	Total (Average)	59	510,917	229,272	44.87								86.9
	Under \$2	8	70,546	29,693	42.09								81.5
	\$2 to \$4	28	288,400	118,454	41.07								79.5
	\$4 to \$6	8	73,706	43,053	58.41								113.1
	\$6 & over	8	78,265	38,072	48.64								94.2
\$90 to \$180	Total (Average)	48	1,112,868	587,583	52.80								102.3
	Under \$2	20	386,038	226,744	58.74								113.6
	\$2 to \$4	15	341,962	168,668	49.32								95.5
	\$4 to \$6	7	172,421	96,369	55.89								108.3
	\$6 & over	6	212,447	95,802	45.09								87.3
\$180 & over	Total (Average)	23	2,167,360	1,150,510	63.08								102.8
	Under \$2	8	481,366	275,397	57.21								110.8
	\$2 to \$4	4	308,707	133,108	43.12								83.5
	\$4 to \$6	5	364,426	179,470	49.25								95.4
	\$6 & over	6	1,012,861	562,535	55.54								107.6

Average \$51.63

TABLE 99

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL EXPENSE, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1918






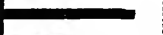













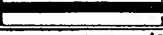
Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense									
					Amount	Per Cent.							Actual	
						Graphic								
					0	20	40	60	80	100	120	140	160	
Total (Average)	Total (Average)	135	\$2,926,234	\$1,475,360	\$50.35								100.0	
	Under \$2	20	395,711	244,748	61.85								122.8	
	\$2 to \$4	45	782,689	370,532	47.34								94.0	
	\$4 to \$6	34	689,157	267,621	42.52								84.4	
	\$6 & over	36	1,118,677	690,559	52.79								104.8	
Under \$40	Total (Average)	37	215,913	92,571	42.78								85.0	
	Under \$2	4	24,289	9,959	41.00								81.4	
	\$2 to \$4	8	47,242	19,976	42.28								84.0	
	\$4 to \$6	11	62,777	23,674	37.71								74.9	
	\$6 & over	14	81,605	38,762	47.50								94.3	
\$40 to \$80	Total (Average)	56	657,743	299,694	45.56								90.5	
	Under \$2	8	72,254	33,916	46.94								93.2	
	\$2 to \$4	22	277,257	121,256	43.73								86.9	
	\$4 to \$6	15	161,091	65,955	40.94								81.3	
	\$6 & over	11	147,141	78,567	53.40								106.1	
\$80 to \$180	Total (Average)	28	719,130	363,676	50.57								100.4	
	Under \$2	5	99,599	55,117	55.34								109.9	
	\$2 to \$4	12	295,897	161,063	54.43								106.1	
	\$4 to \$6	5	161,475	67,483	41.79								83.0	
	\$6 & over	6	162,159	80,013	49.34								98.0	
\$180 & over	Total (Average)	14	1,333,448	717,619	53.82								106.9	
	Under \$2	3	199,569	145,756	73.04								145.1	
	\$2 to \$4	3	162,293	68,237	42.05								83.5	
	\$4 to \$6	3	243,814	110,409	45.28								89.9	
	\$6 & over	5	727,772	393,217	54.03								107.3	
Average \$50.35														

TABLE 100

TOTAL EXPENSE, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL EXPENSE, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Expense	Total Selling Expense	Selling Expense per \$100 of Total Expense		
					Amount	Per Cent.	
						Graphic	Actual
						0 20 40 60 80 100 120	
Total (Average)	Total (Average)	135	\$1,959,827	\$962,428	\$49.11		100.0
	Under \$2	14	132,747	52,942	39.88		81.2
	\$2 to \$4	35	371,614	186,673	50.23		102.3
	\$4 to \$6	29	436,823	204,324	46.78		95.3
	\$6 & over	57	1,018,643	518,489	50.90		103.6
Under \$40	Total (Average)	63	544,596	146,398	42.48		86.5
	Under \$2	8	42,058	12,564	29.87		60.8
	\$2 to \$4	16	78,533	36,413	46.37		94.4
	\$4 to \$6	13	66,741	26,849	40.23		81.9
	\$6 & over	26	157,264	70,572	44.87		91.4
\$40 to \$90	Total (Average)	45	564,871	277,395	49.11		100.0
	Under \$2	4	31,900	15,065	47.23		96.2
	\$2 to \$4	13	162,882	74,368	45.66		95.0
	\$4 to \$6	8	99,554	49,140	49.36		100.5
	\$6 & over	20	270,535	138,822	51.31		104.5
\$90 to \$180	Total (Average)	22	588,055	302,620	51.46		104.8
	Under \$2	2	58,789	25,313	43.06		87.7
	\$2 to \$4	6	130,199	75,892	58.29		118.7
	\$4 to \$6	7	230,716	110,375	47.84		97.4
	\$6 & over	7	168,351	91,040	54.08		110.1
\$180 & over	Total (Average)	5	462,305	236,015	51.05		104.0
	Under \$2	-	-	-	-		-
	\$2 to \$4	-	-	-	-		-
	\$4 to \$6	1	39,812	17,960	45.11		91.9
	\$6 & over	4	422,493	218,055	51.61		105.1

Average \$49.11

per \$100 of total net sales, different groups of stores have been classified according to years and size. In Table 101, 282 stores are classified by the amounts of inventory per \$100 of total net sales and further by the amounts of fixture investment similarly measured. Certain aspects of this table are of interest. It should be noted that the stores are not classified by size, notwithstanding the fact that size is an important element in determining the amounts of selling expense in relation to total net sales. To have classified the stores by size and by the methods used in this table

would have so distributed the data as to have made conclusions from them difficult, if not impossible.

In the total section of Table 101 the amounts of selling expense in terms of sales are found to increase as the amounts invested in fixtures in relation to sales increase. To this general rule there is but one exception and that of minor significance. A similar increase is also observed in the amounts of selling expense per \$100 of total net sales per stock turnover.* When the stores are classified, as in

* The method by which this unit is computed is explained on page 4, item 19.

TABLE 101

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER,
FOR STORES CLASSIFIED BY AMOUNT OF INVENTORY PER \$100 OF TOTAL
NET SALES AND BY AMOUNT OF FIXTURE ACCOUNT
PER \$100 OF TOTAL NET SALES, 1919

Amount of Inventory per \$100 of Total Net Sales	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Selling Expense per \$100 of Total Net Sales										Selling Expense per \$100 of Total Net Sales per Stock Turnover													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	Actual	0		20	40	60	80	100	120	140	160	180	Actual		
Total (Average)	Total (Average)	282	\$10.16											100.0	\$4.62											100.0
	Under \$2	75	9.40											92.5	3.92											84.8
	\$2 to \$4	121	9.33											91.8	4.44											96.1
	\$4 to \$6	49	10.20											100.4	4.86											106.2
	\$6 & over	39	12.32											121.3	5.60											121.2
Under \$20	Total (Average)	17	9.03											88.9	2.05											44.4
	Under \$2	7	8.52											83.9	2.03											43.0
	\$2 to \$4	8	9.47											93.2	1.93											41.8
	\$4 to \$6	1	9.52											93.7	1.90											41.1
	\$6 & over	1	8.45											83.2	2.73											59.1
\$20 to \$40	Total (Average)	153	10.79											106.2	4.50											97.4
	Under \$2	49	10.16											100.0	4.23											91.6
	\$2 to \$4	62	9.84											96.9	4.28											92.6
	\$4 to \$6	27	10.35											101.9	4.70											101.7
	\$6 & over	16	12.99											127.9	4.81											104.1
\$40 & over	Total (Average)	112	8.64											87.0	6.31											136.6
	Under \$2	18	6.30											62.0	4.50											97.4
	\$2 to \$4	31	8.51											80.8	5.47											118.4
	\$4 to \$6	21	10.11											99.5	6.74											145.9
	\$6 & over	22	10.56											103.9	6.12											175.8
			Average \$10.16										Average \$4.62													

the remaining parts of the table, according to the size of the inventory in relation to sales, the general, though not unmistakable, tendency is for the amounts of selling expense per \$100 of total net sales to increase. This condition is clear for the stores having inventories in relation to sales of \$40 and over, while it is doubtful for those having small inventories.

The amounts of selling expense per \$100 of total net sales for stores classified by the amounts of inventory increase and then decrease from group to group. The average amount for those having inventories of less than \$20 per \$100 of total net sales is \$9.03; for those with inventories of \$20 to \$40 it is \$10.79; and for those with inventories of \$40 and over it is \$8.84. However, when the amounts of selling expense are computed per \$100 of total net sales per stock turnover no such uncertainty exists. The amounts increase from \$2.05, for the stores having inventories of less than \$20, to \$4.50 for those with inventories of \$20 to \$40, and to \$6.31 for those having inventories of \$40 and over.

From this table it may be concluded: First, that the amounts of selling expense on the whole increase as the amounts invested in fixtures per \$100 of total net sales increase. Second, that the amounts of selling expense per \$100 of total net sales increase and then decrease with the size of the inventory per \$100 of total net sales. Third, that the amounts of selling expense per \$100 of total

net sales per stock turnover increase as the amounts invested in fixtures per \$100 of total net sales increase. Fourth, that the amounts of selling expense per \$100 of total net sales per stock turnover increase as the amounts of inventory per \$100 of total net sales increase.

The table not only shows that selling expense, differently measured, increases or decreases for the different groups of stores; it also contains the amounts of expenditure. These constitute standards against which merchants may check their own business experience.

D.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales, for Stores Classified by Rates of Stock Turnover, 1919.

Additional light is thrown upon the relation of the amounts of selling expense to sales in stores classified according to the amounts invested in fixtures when stores are classified according to the rates at which they turned their stock during the year. Such a classification is contained in Table 102.

The total section of this table duplicates the corresponding section of Table 101 and needs no further consideration. In the remaining part of the table, however, the stores are classified differently. From this table it will be observed that the amounts of selling expense per \$100 of total net sales increase with the rapidity with which the stock is turned. For the stores which turned their stock less than once, the amount is \$7.66; for

TABLE 102

TOTAL NET SALES, SELLING EXPENSE, AND AMOUNT OF SELLING EXPENSE PER \$100
OF TOTAL NET SALES, FOR STORES CLASSIFIED BY RATES OF STOCK
TURNOVER AND BY AMOUNT OF FIXTURE ACCOUNT PER
\$100 OF TOTAL NET SALES, 1919

Rates of Stock Turnover	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Selling Expense	Selling Expense per \$100 of Total Net Sales													
					Amount	Per Cent.								Actual				
						Graphic												
										0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	282	\$35,563,014	\$3,611,688	\$10.16	<div></div>								100.0				
	Under \$2	73	9,563,956	899,465	9.40	<div></div>								92.5				
	\$2 to \$4	121	12,441,186	1,161,144	9.33	<div></div>								91.6				
	\$4 to \$6	49	5,636,955	574,841	10.20	<div></div>								100.4				
	\$6 & over	39	7,920,917	976,238	12.32	<div></div>								121.3				
'Under 1	Total (Average)	9	601,109	46,063	7.66	<div></div>								75.4				
	Under \$2	4	372,130	30,358	8.16	<div></div>								80.3				
	\$2 to \$4	2	121,583	6,940	5.71	<div></div>								56.2				
	\$4 to \$6	2	78,153	7,231	9.25	<div></div>								91.0				
	\$6 & over	1	29,243	1,534	5.25	<div></div>								51.7				
1 to 2	Total (Average)	136	11,010,775	1,057,084	9.60	<div></div>								94.5				
	Under \$2	26	2,115,399	199,292	9.42	<div></div>								92.7				
	\$2 to \$4	62	4,560,251	404,920	8.98	<div></div>								87.4				
	\$4 to \$6	25	2,054,966	220,589	10.73	<div></div>								105.6				
	\$6 & over	23	2,280,159	232,283	10.19	<div></div>								100.3				
2 to 3	Total (Average)	100	15,987,018	1,694,631	10.60	<div></div>								104.3				
	Under \$2	29	3,428,161	300,903	8.78	<div></div>								86.4				
	\$2 to \$4	44	5,458,218	501,163	9.18	<div></div>								90.4				
	\$4 to \$6	16	2,289,463	236,457	10.33	<div></div>								101.7				
	\$6 & over	11	4,811,176	656,108	13.64	<div></div>								134.3				
3 & over	Total (Average)	37	7,964,112	813,910	10.22	<div></div>								100.6				
	Under \$2	14	3,648,266	368,912	10.11	<div></div>								99.5				
	\$2 to \$4	13	2,301,134	248,121	10.78	<div></div>								106.1				
	\$4 to \$6	6	1,214,373	110,564	9.10	<div></div>								89.6				
	\$6 & over	4	800,339	86,313	10.78	<div></div>								106.1				

Average \$10.16

those which turned their stock between one and two times, it is \$9.60; for those that turned their stock between two and three times, it is \$10.60; and for those which turned their stock three times or more during the year, it is \$10.22. That is, the amounts of selling expense over the whole range of groups increase with the rapidity of stock turnover. This, in part, is another way of saying that selling expense per \$100 of total net sales increases with the size of the store, inasmuch as the rates of stock turnover vary directly with the size of the store. Chief interest, however, in this table lies in the relative size of the amounts of selling expense for stores with different investments in fixtures in relation to sales but with similar stock turns. Comparisons which develop these relations are contained in the body of the table.

For purposes of analysis, the single group of stores which turned their stock from two to three times may be used. As the amounts of investment in fixtures in terms of sales increase, the amounts of selling expense in relation to sales also increase. For those stores having fixture investments of less than \$2, the amount is \$8.78; for those with fixture investments of \$2 to \$4, it is \$9.18; for those with fixture investments of \$4 to \$6, \$10.33; and for those with fixture investments of \$6 and over, \$13.64. The tendency for this group of stores is rather more definite than for the other groups in the table. The direction of change, however, is generally the same.

In this table no attention is given to the size of the store. To have classified these stores in the detail contained in Table 101 and in addition by size of store would have unduly complicated the arrangement. Table 102 should be considered, however, with this limitation in mind. Its value consists in the norms of expense distribution which are set up for stores operating under different conditions. These serve as guides to merchants in judging the amounts of their own expenditures. They are submitted for what they are worth and not as proof unmistakable that a causal connection between amounts of selling expense, rates of stock turnover, and investments in fixtures has been established.

E.—Summary.

- (1). For stores with a given amount of investment in fixtures per \$100 of total net sales, the amounts of selling expense in terms of sales decreased from 1914 to 1918, and 1918 to 1919. This is true for all stores and for the stores classified by size.
- (2). For stores of a given size, amounts of selling expense per \$100 of total net sales increase as the amounts of the fixture investment per \$100 of total net sales increase.
- (3). When stores are classified by the size of their fixture investment per \$100 of total net

sales, the amounts of selling expense per \$100 of total net sales increase as the stores increase in size.

- (4). For stores with a given amount invested in fixtures in terms of sales, the proportions of total expense attributable to selling increased between 1914 and 1918, and 1918 and 1919.
- (5). When stores are classified by size, the amounts of selling expense per \$100 of total expense tend neither to increase nor to decrease regularly as investments in fixtures increase.
- (6). For stores with a given investment in fixtures, the amounts of selling expense per \$100 of total expense increase as the stores increase in size.
- (7). When stores are classified either by amounts of inventory in terms of sales or by rates of stock turnover, selling expenses measured in terms of sales alone or of sales per stock turnover increase as the investments in fixtures per \$100 of total net sales increase.
- (8). For stores with a given investment in fixtures per \$100 of total net sales, the amounts of selling expense in terms of sales increase as the rates of stock turnover increase.

(3)—YEARLY AMOUNTS OF SELLING EXPENSE IN RELATION TO INVESTMENTS IN FIXTURES PER 100 SQUARE FEET OF FLOOR SPACE.

A.—Yearly Amounts of Selling Expense per 100 Square Feet of Floor Space and per \$100 of Total Net Sales, for Stores Classified by Size, 1919.

It is shown in Table 75 that stores of a given size which pay high rent per unit of floor space utilize relatively small amounts of space. A similar condition obtains for stores which have large amounts invested in fixtures per 100 square feet of floor space. The present discussion has to do with amounts of selling expense in terms of sales and in terms of the amounts sold per square foot of floor space for stores classified according to their investments in fixtures.

Table 103 shows for 303 stores, classified by size and by amounts invested in fixtures per 100 square feet of floor space, the average amounts of floor space used per store and the average amounts of selling expense per square foot of floor space. The body of the table rather than the total is of chief interest. The meaning of the details which it contains may be illustrated by selecting stores with sales of \$80,000 to \$180,000. The average amount of selling expense per store for the 102 stores is \$11,513 and the average amount of floor space in square feet is 5,012. As the amounts invested in fixtures per 100 square feet of floor space increase for this group of stores,

the amounts of floor space utilized decrease. For the stores having the smallest amount invested in fixtures in relation to floor space, the amount of floor space utilized is 6,374 square feet and from this as a maximum it

decreases to 3,717 for stores which have investments in fixtures of \$120 and over for each 100 square feet of floor space. There is no definite tendency, on the other hand, for the amounts of selling expense per store

TABLE 103

AMOUNT OF SELLING EXPENSE AND FLOOR SPACE PER STORE AND AMOUNT OF SELLING EXPENSE PER 100 SQUARE FEET OF FLOOR SPACE, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per 100 sq. ft. of Floor Space	Number of Stores	Floor Space per Store (sq. ft.)	Selling Expense per Store	Selling Expense per 100 Square Feet of Floor Space												
					Amount	Per Cent.											
						Graphic											
						0	20	40	60	80	100	120	140	160	180	200	Actual
Total (Average)	Total (Average)	303	4,694	\$11,866	\$252.79												100.0
	Under \$40	74	5,215	7,844	150.41												59.5
	\$40 to \$80	105	3,964	8,314	209.74												83.0
	\$80 to \$120	63	4,141	10,906	263.37												104.2
	\$120 & over	61	5,891	23,852	404.89												160.2
Under \$40	Total (Average)	45	2,171	2,010	92.58												36.6
	Under \$40	11	2,764	1,499	54.23												21.5
	\$40 to \$80	24	2,118	2,096	98.91												39.1
	\$80 to \$120	3	2,100	2,236	106.48												42.1
	\$120 & over	7	1,456	2,424	166.48												65.9
\$40 to \$80	Total (Average)	113	3,080	4,102	133.18												52.7
	Under \$40	33	3,786	3,828	101.11												40.0
	\$40 to \$80	42	2,634	3,669	129.46												51.2
	\$80 to \$120	23	2,559	4,729	184.80												73.1
	\$120 & over	15	3,014	4,959	164.53												65.1
\$80 to \$120	Total (Average)	102	5,012	11,513	229.71												90.9
	Under \$40	22	6,374	10,540	165.36												65.4
	\$40 to \$80	33	5,354	12,427	232.11												91.8
	\$80 to \$120	29	4,394	10,613	241.53												95.5
	\$120 & over	18	3,717	12,480	335.76												132.8
\$120 & over	Total (Average)	43	10,823	43,419	401.17												158.7
	Under \$40	8	11,296	25,717	227.66												90.1
	\$40 to \$80	6	11,609	43,080	371.09												146.8
	\$80 to \$120	8	6,539	32,978	366.20												152.8
	\$120 & over	21	11,289	54,237	480.44												190.1

Average \$252.79

to increase or to decrease as the fixture investments per unit of floor space increase.

The table also shows for each group of stores, classified by size, the amounts of selling expense per 100 square feet of floor space. For the group of stores under consideration, the average was \$229.71. For the stores with the smallest amount invested in fixtures per 100 square feet of floor space, the corresponding amount was \$165.36, and from this as a minimum the amounts increase as the fixture investments increase. For those stores which had \$120 and over invested in fixtures, measured in this manner, the selling expense per 100 square feet of floor space was \$335.75.

The tendencies for the amounts of selling expense per store, floor space per store, and selling expense per 100 square feet of floor space, to increase or decrease with investments in fixtures is not so certain in the other groups of stores. Generally speaking, however, the conditions noted above for this group also characterize the others.

Table 104 shows the amounts of selling expense per \$100 of total net sales and per \$100 of total net sales for the amount sold for each square foot of floor space.* The details of this table are of interest. Within each group of stores, when classified by size, certain unmistakable tendencies in these amounts seem to be present. First, the amounts of sell-

ing expense per \$100 of total net sales increase as the amounts invested in fixtures per unit of floor space increase. To this general rule there are occasional exceptions, but these are insufficient to alter the conclusion. When the amounts of selling expense per \$100 of total net sales for the amount sold on each square foot of floor space are determined, they seem on the whole to decrease for each group of stores as the fixture investments per \$100 of total net sales increase. That is, an inverse relationship between the amounts expressed in this form and in selling expense in terms of sales alone is set up. One may conclude, in spite of the fact that the amounts of selling expense per \$100 of total net sales increase with the amounts invested in fixtures per 100 square feet of floor space, that this disadvantage is overcome because of the diminished amount of floor space involved. That is, the sales per unit of floor space, in the stores having large amounts invested in fixtures, overcome the disadvantage under which stores operate so far as selling expense alone is concerned.

Tables 104 and 105 not only establish more or less definitely certain tendencies of change in expense ratios, but also set up standards against which merchants may judge their own costs measured in the units employed.

Table 105 contains the data found in Table 104, but rearranged so as to facilitate comparisons of selling expense per \$100 of total net sales and per \$100 of sales for the amount sold

* The method by which this unit is computed is explained on page 4, item 25.

TABLE 104

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER SALES PER SQUARE FOOT OF FLOOR SPACE, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Classified Total Net Sales (in 000's)	Amount of Picture Account per 100 sq. ft. of Floor Space	Number of Stores	Selling Expense per \$100 of Total Net Sales										Selling Expense per \$100 of Total Net Sales per Sales per Square Foot of Floor Space													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	Actual	0		20	40	60	80	100	120	140	160	Actual			
Total (Average)	Total (Average)	303	\$9.93											100.0	\$0.59											100.0
	Under \$40	74	8.88											85.8	0.48											123.1
	\$40 to \$80	105	9.54											96.1	0.43											110.3
	\$80 to \$120	63	9.67											97.4	0.56											92.3
	\$120 & over	61	11.09											111.7	0.50											78.9
Under \$40	Total (Average)	45	6.46											65.1	0.46											115.4
	Under \$40	11	5.55											55.9	0.57											146.2
	\$40 to \$80	24	6.50											65.5	0.43											110.3
	\$80 to \$120	3	7.59											74.4	0.51											130.8
	\$120 & over	7	7.13											71.8	0.51											79.5
\$40 to \$80	Total (Average)	113	7.13											71.8	0.59											97.4
	Under \$40	33	6.76											63.1	0.45											115.4
	\$40 to \$80	42	6.42											54.7	0.52											82.1
	\$80 to \$120	23	7.80											78.5	0.53											84.2
	\$120 & over	15	8.85											89.1	0.48											123.1
\$80 to \$120	Total (Average)	102	9.80											98.7	0.42											107.7
	Under \$40	22	9.10											91.6	0.50											128.2
	\$40 to \$80	53	10.38											104.5	0.46											117.9
	\$80 to \$120	29	9.47											95.4	0.57											94.9
	\$120 & over	18	10.04											101.1	0.50											76.9
\$120 & over	Total (Average)	45	11.45											116.3	0.53											84.6
	Under \$40	8	9.79											98.6	0.42											107.7
	\$40 to \$80	8	12.75											128.2	0.44											112.8
	\$80 to \$120	8	11.14											112.2	0.52											82.1
	\$120 & over	21	11.61											116.9	0.28											71.8
Average \$9.93																	Average \$0.59									

on each square foot of floor space for stores of different size, but with the same amounts invested in fixtures. A moment's consideration of its contents may be of interest.

For each group of stores, when classified by the amounts of fixture investments per unit of floor space, the amounts of selling expense per \$100

of total net sales increase as the size of the stores increases. They also increase as the amounts of fixture investment in relation to floor space increase. The amounts of selling expense per \$100 of sales for the amount sold on each square foot of floor space, for each of the groups of stores as classified, however, generally tend to

decrease as the size of the stores increases, and as the size of the investments in fixtures increases. This table confirms the conclusion drawn from Table 104 that, while amounts of selling expense are generally high in terms of sales for stores having large investments in fixtures per 100 square

feet of floor space, they are relatively low when they are expressed in terms of the utilization of the floor space.

The association between large amounts of selling expense per \$100 of total net sales and large investments in fixtures per 100 square feet of floor space is brought out in Table

TABLE 105

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER SALES PER SQUARE FOOT OF FLOOR SPACE, FOR STORES CLASSIFIED BY AMOUNT OF FIXTURE ACCOUNT PER 100 SQUARE FEET OF FLOOR SPACE AND BY SIZE OF STORE, 1919

Amount of Fixture Account per 100 sq. ft. of Floor Space	Classified Total Net Sales (in 000's)	Number of Stores	Selling Expense per \$100 of Total Net Sales												Selling Expense per \$100 of Total Net Sales per Sales per Square Foot of Floor Space													
			Amount	Per Cent.											Amount	Per Cent.												
				Graphic												Graphic												
				0	20	40	60	80	100	120	140	0	20	40	60	80	100	120	140	160								
Total (Average)	Total (Average)	303	\$3.93												100.0	\$0.39												100.0
	Under \$40	45	6.46												65.1	0.45												115.4
	\$40 to \$80	113	7.13												71.6	0.38												97.4
	\$80 to \$180	102	9.90												98.7	0.42												107.7
	\$180 & over	43	11.43												113.5	0.33												84.6
Under \$40	Total (Average)	74	8.52												85.8	0.48												123.1
	Under \$40	11	5.55												55.9	0.57												146.2
	\$40 to \$80	33	6.76												66.1	0.45												115.4
	\$80 to \$180	22	9.10												91.6	0.50												128.2
	\$180 & over	8	9.79												93.6	0.42												107.7
\$40 to \$80	Total (Average)	105	9.54												96.1	0.43												110.3
	Under \$40	24	6.50												65.5	0.43												110.3
	\$40 to \$80	42	6.42												64.7	0.32												82.1
	\$80 to \$180	33	10.33												104.5	0.46												117.9
	\$180 & over	6	12.73												128.2	0.44												112.8
\$80 to \$180	Total (Average)	63	9.67												97.4	0.36												92.3
	Under \$40	3	7.39												74.4	0.51												130.8
	\$40 to \$80	23	7.90												78.5	0.33												84.6
	\$80 to \$180	29	9.47												95.4	0.37												94.9
	\$180 & over	8	11.14												112.2	0.32												82.1
\$180 & over	Total (Average)	61	11.09												111.7	0.30												76.9
	Under \$40	7	7.13												71.8	0.31												79.8
	\$40 to \$80	15	8.65												89.1	0.46												123.1
	\$80 to \$180	19	10.04												101.1	0.30												78.9
	\$180 & over	21	11.61												116.9	0.29												71.8

Average \$9.93

Average \$0.39

106. For each group of stores, when classified by size, the amounts invested in fixtures per unit of floor space are larger for the stores having large, than for those having small

amounts of selling expense in terms of sales. An inspection of this table will reveal only one exception to the general rule and this is based upon only one store.

TABLE 106

FLOOR SPACE, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER 100 SQUARE FEET OF FLOOR SPACE, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Floor Space (sq. ft.)	Amount of Fixture Account	Amount of Fixture Account per 100 sq. ft. of Floor Space											
					Amount	Per Cent.										
						Graphic										Actual
0 20 40 60 80 100 120 140 160																
Total (Average)	Total (Average)	303	1,422,359	\$1,326,406	\$93.25											100.0
	Under \$6	85	224,662	139,386	62.04											66.5
	\$6 to \$12	163	828,792	767,735	92.63											99.3
	\$12 & over	55	368,905	419,285	113.66											121.9
Under \$40	Total (Average)	45	97,716	56,181	57.49											61.7
	Under \$6	20	41,754	17,694	42.38											45.4
	\$6 to \$12	22	44,502	32,360	72.72											80.0
	\$12 & over	3	11,460	6,127	53.46											57.3
\$40 to \$80	Total (Average)	113	347,999	209,385	60.17											64.5
	Under \$6	49	135,553	78,399	57.83											62.0
	\$6 to \$12	54	180,121	105,227	58.42											62.6
	\$12 & over	10	32,320	25,759	79.70											85.5
\$80 to \$180	Total (Average)	102	511,239	403,538	79.91											85.7
	Under \$6	15	43,475	35,454	77.96											83.6
	\$6 to \$12	61	317,017	247,450	78.06											83.7
	\$12 & over	26	148,747	125,634	84.46											90.6
\$180 & over	Total (Average)	43	465,405	652,302	140.15											150.3
	Under \$6	1	1,875	7,839	418.03											448.3*
	\$6 to \$12	26	287,152	332,698	133.27											142.9
	\$12 & over	16	176,378	261,765	148.41											159.2

Average \$93.25

*Full length not shown.

B.—Summary.

- (1). The amounts of selling expense per 100 square feet of floor space and per \$100 of total net sales increase as the investments in fixtures per 100 square feet of floor space increase. This is true for all stores and for stores of a given size.
- (2). The amounts of selling expense per \$100 of total net sales for the amount sold per square foot of floor space decrease as the investments in fixtures per 100 square feet of floor space increase. This holds for all stores and for stores classified by size.
- (3). For stores with a given amount invested in fixtures per 100 square feet of floor space, the amounts of selling expense in terms of sales alone increase, while in terms of both sales and amount sold per unit of floor space they decrease, as the stores increase in size.

5.—YEARLY AMOUNTS OF SELLING EXPENSE IN RELATION TO EXPENDITURES FOR ADVERTISING, FOR STORES CLASSIFIED BY YEARS, BY SIZE, AND BY LOCATION.

The term "advertising" as used in this section includes expenditures for the different methods of advertising such as newspapers, billboards, etc.,*

* See the questionnaire in Volume VI, page 597, of the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*.

as well as the salaries of the advertising employees, such as window trimmers and advertising men. The stores which are studied in this section are classified for the years in question by the amounts of advertising expenditures in relation to sales. Both simple and complex units of measurement,[†] of the same general type as those which have already been used, are employed.

In the following discussion, chief emphasis is given to the conditions in 1919, although for a limited group of stores, comparisons are made between the increases in total net sales and selling expense for the years 1914, 1918, and 1919. The order in which these topics are discussed is essentially that used in the foregoing sections.

A.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, for Stores Classified by Size, 1919, 1918, and 1914.

Table 107 shows the amounts of selling expense per \$100 of total net sales in 1919 for 282 stores classified by size and by the amounts expended for advertising in relation to sales. It also shows the amounts of selling expense per \$1 of advertising for the stores similarly classified.

It is hardly necessary to call attention to the fact, so often noticed before, that the amounts of selling expense per \$100 of total net sales increase as the stores increase in size.

[†] The methods by which these are computed are explained on page 4.

The amounts in which chief interest now lies are those for stores with different amounts spent for advertising per \$100 of total net sales. It will be seen from Table 107 that for all the stores and for each group, when classified by size, the amounts of selling expense per \$100 of total net sales increase as the amounts expended for advertising, similarly expressed, increase. For the 79 stores which spent

less than \$1 for advertising per \$100 of total net sales, it cost, in 1919, \$7.07 to sell \$100 worth of goods. For those which spent from \$1 to \$2 for each \$100 of sales, the corresponding figure was \$8.46. For the stores spending amounts larger than \$2 for advertising per \$100 of total net sales, the costs of selling, similarly measured, were even higher. How large they are for the stores as classified,

TABLE 107

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$1 OF ADVERTISING, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Selling Expense per \$100 of Total Net Sales							Selling Expense per \$1 of Advertising														
			Amount	Per Cent.						Amount	Per Cent.													
				Graphic							Graphic													
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	160	180	200	220
Total (Average)	Total (Average)	232	\$10.16							100.0	\$4.51													100.0
	Under \$1	79	7.07							69.6	13.28													294.6*
	\$1 to \$2	100	8.46							83.3	5.82													129.0
	\$2 to \$3	68	11.62							114.4	4.70													104.2
	\$3 & over	37	12.35							121.6	3.08													67.0
Under \$40	Total (Average)	53	6.00							69.1	5.11													113.5
	Under \$1	15	5.01							49.3	8.81													196.3
	\$1 to \$2	14	7.12							70.1	5.35													118.8
	\$2 to \$3	2	5.27							61.9	2.15													47.7
	\$3 & over	2	7.11							70.0	2.08													46.7
\$40 to \$30	Total (Average)	106	7.45							73.5	5.44													120.6
	Under \$1	43	5.77							66.8	10.06													223.1
	\$1 to \$2	37	7.34							72.2	5.35													118.8
	\$2 to \$3	20	9.32							91.7	4.01													80.9
	\$3 & over	6	13.23							130.2	3.69													81.8
\$30 to \$200	Total (Average)	98	10.16							100.0	5.07													112.4
	Under \$1	13	8.74							86.0	15.48													343.2*
	\$1 to \$2	39	8.47							86.4	6.72													126.6
	\$2 to \$3	26	11.63							114.6	4.09													108.4
	\$3 & over	16	13.12							129.1	3.17													70.5
\$200 & over	Total (Average)	46	11.36							111.8	4.06													90.0
	Under \$1	5	7.92							78.0	22.89													507.5*
	\$1 to \$2	10	9.56							92.1	6.33													140.4
	\$2 to \$3	18	12.07							118.8	4.73													104.9
	\$3 & over	14	12.12							119.3	2.94													65.8

Average \$10.16

Average \$4.51

* Full length not shown

as well as the direction of change from group to group may be observed by consulting Table 107.

The section of Table 107 which shows the amounts of selling expense per \$1 of advertising presents a somewhat different picture. For all the stores, irrespective of size, the average amount of selling expense per \$1 of advertising was \$4.51. Over the whole range of store sizes, the amounts decrease as the stores increase in size. Within each group of stores, when classified by size, moreover, the amounts rapidly decrease as the expenditures for advertising per \$100 of total net sales increase. That is, using for illustrative purposes the 106 stores with annual sales of \$40,000 to \$80,000, it costs \$5.44 in selling expense for each \$1 of advertising to sell \$100 worth of goods. When the expenditure for advertising is less than \$1 per \$100 of total net sales, the corresponding selling expense is \$10.06, and from this as a maximum, the amounts decrease to \$3.69 for the 6 stores which spent for advertising in relation to their sales \$2 and over. The same tendency for the amounts to decrease characterizes each group of stores. Both the direction of change and the amounts of expenditure expressed in this unit may be found by consulting the table.

As has been observed, the amounts of selling expense per \$100 of total net sales are relatively high for the large stores. Moreover, advertising expenditures per \$100 of total net sales are also relatively high for the large stores. This association is

brought out in Table 108 which shows the amounts of advertising expenditures per \$100 of total net sales for stores classified according to amounts of selling expense in relation to sales. It will be seen from this table that, as the stores increase in size, the advertising expenditures in terms of sales increase and that for stores of given size, the amounts of advertising expense per \$100 of total net sales increase as the selling expenses, similarly measured, increase. This is to be expected in view of the fact that advertising expenditure is a part of total selling expense. The purpose of the table is to show the amounts spent for this purpose and the tendencies for them to change in each of the different store-groups.

















Another approach to the study of selling expense per \$100 of total net sales in relation to amounts of advertising, similarly expressed, is found in Table 109. Only one part of the table seems to call for attention at this place.

In the right-hand columns, under the caption "Selling Expense per \$100 of Total Net Sales per Stock Turnover,"* are shown the different amounts of selling expense computed in this form for stores of different size and with different amounts of advertising expenditure per \$100 of total net sales. Other things being equal, the amounts of expenditure for advertising should increase both sales and the rapidity with which stock is turned. The table was constructed

* The method by which this unit is computed is explained on page 4, item 19.

TABLE 108

AMOUNT OF ADVERTISING EXPENSE PER \$100 OF TOTAL NET SALES, FOR STORES
CLASSIFIED BY SIZE AND BY AMOUNT OF SELLING EXPENSE PER
\$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Advertising Expense	Advertising per \$100 of Total Net Sales										
					Amount	Per Cent.									
						Graphic						Actual			
					0	20	40	60	80	100	120		140	160	
Total (Average)	Total (Average)	282	\$35,563,014	\$799,944	\$2.25							100.0			
	Under \$6	71	4,333,266	43,371	0.99							44.0			
	\$6 to \$12	155	21,000,010	433,232	2.06							91.6			
	\$12 & over	56	10,179,733	323,341	3.18							141.3			
Under \$40	Total (Average)	33	1,012,152	11,998	1.17							52.0			
	Under \$6	17	519,373	4,834	0.93							41.3			
	\$6 to \$12	14	446,275	6,309	1.41							62.7			
	\$12 & over	2	46,504	745	1.60							71.1			
\$40 to \$80	Total (Average)	106	6,020,400	82,543	1.37							60.9			
	Under \$6	42	2,300,377	19,564	0.85							37.8			
	\$6 to \$12	53	3,046,862	45,467	1.49							66.2			
	\$12 & over	11	673,161	17,512	2.60							115.6			
\$80 to \$180	Total (Average)	93	11,667,072	233,690	2.00							88.9			
	Under \$6	11	1,091,299	13,433	1.23							54.7			
	\$6 to \$12	60	7,262,132	130,555	1.80							80.0			
	\$12 & over	27	3,313,641	89,702	2.71							120.4			
\$180 & over	Total (Average)	45	16,863,390	471,823	2.80							124.4			
	Under \$6	1	472,217	5,540	1.17							52.0			
	\$6 to \$12	28	10,244,741	250,901	2.45							108.9			
	\$12 & over	16	6,146,432	215,382	3.50							155.6			
Average \$2.25															

in order to place stores on a unit basis as respects both sales and rates of stock turnover.

While it cost \$10.16, on the average, in 1919, to sell \$100 worth of goods, the corresponding amount per turnover was \$4.62. For the stores which sold in 1919 less than \$40,000 worth of goods, and for which the

selling expense per \$100 of total net sales was \$6.00, the corresponding amount per stock turnover was \$4.00. For the stores which sold between \$40,000 and \$80,000, the selling expense per \$100 of total net sales was \$7.45. The corresponding amount per turnover was \$4.14. Similarly, those that sold from \$80,000 to \$180,000

in this year had a selling expense per \$100 of total net sales of \$10.16, and per stock turnover of \$5.35. The selling expense was high in terms of sales for the stores which sold in this year \$180,000 and over. In terms of stock turnover, however, it was only slightly larger than for those which sold between \$40,000 and \$80,000

worth of goods. Within each store-group, when classified by size, the amounts of selling expense per \$100 of total net sales and per \$100 of total net sales per stock turnover increase as the expenditures for advertising increase.

In Table 110 the order in which the data contained in Table 109 are

TABLE 109

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER,
FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF ADVERTISING
PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Selling Expense per \$100 of Total Net Sales										Selling Expense per \$100 of Total Net Sales per Stock Turnover											
			Amount	Per Cent.									Amount	Per Cent.										
				Graphic										Graphic										
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	160	180	Actual	
Total (Average)	Total (Average)	282	\$10.16										100.0	\$4.62										100.0
	Under \$1	79	7.07										69.6	3.37										72.9
	\$1 to \$2	100	8.46										83.3	4.23										91.6
	\$2 to \$3	66	11.62										114.4	5.05										109.3
	\$3 & over	37	12.35										121.6	5.15										111.5
Under \$40	Total (Average)	33	6.00										59.1	4.00										86.6
	Under \$1	15	5.01										49.3	2.95										63.9
	\$1 to \$2	14	7.12										70.1	5.48										118.6
	\$2 to \$3	2	5.27										51.9	2.29										49.6
	\$3 & over	2	7.11										70.0	5.47										118.4
\$40 to \$80	Total (Average)	106	7.45										73.3	4.14										89.6
	Under \$1	43	5.77										56.8	3.21										69.5
	\$1 to \$2	37	7.34										72.2	4.32										93.5
	\$2 to \$3	20	9.32										91.7	5.18										112.1
	\$3 & over	6	13.23										130.2	7.78										168.4
\$80 to \$180	Total (Average)	98	10.16										100.0	5.35										115.8
	Under \$1	18	8.74										86.0	4.16										90.0
	\$1 to \$2	39	8.47										83.4	4.23										91.6
	\$2 to \$3	26	11.63										114.5	6.12										132.5
	\$3 & over	15	13.12										129.1	7.29										157.8
\$180 & over	Total (Average)	45	11.35										111.8	4.06										87.9
	Under \$1	3	7.92										78.0	2.40										51.9
	\$1 to \$2	10	9.35										92.1	3.60										77.9
	\$2 to \$3	16	12.07										118.8	4.47										96.8
	\$3 & over	14	12.12										119.3	4.33										93.7
			Average \$10.16										Average \$4.62											

presented is reversed. That is, Table 110 shows the amounts of selling expense per \$100 of total net sales and per \$100 of total net sales per stock turnover for stores of different size with given amounts of advertising expenditure per \$100 of total net sales. Within each group of stores, classified according to expenditures for advertising in relation to sales, the amounts of selling expense, ex-

pressed in terms of sales alone, increase. In terms of sales per turnover the direction of change in the amounts, except for one group of stores, is conflicting. The general effect, however, from the use of the combined unit is to tone down, if not wholly to nullify, the increase in the amounts when the unit of comparison is sales alone.

Another measure of the amounts of

TABLE 110

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER, FOR STORES CLASSIFIED BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES AND BY SIZE OF STORE, 1919

Amount of Advertising per \$100 of Total Net Sales	Classified Total Net Sales (in 000's)	Number of Stores	Selling Expense per \$100 of Total Net Sales										Selling Expense per \$100 of Total Net Sales per Stock Turnover													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140			0	20	40	60	80	100	120	140	160	180			
Total (Average)	Total (Average)	282	\$10.16											100.0	\$4.82											100.0
	Under \$40	35	6.00											59.1	4.00											86.6
	\$40 to \$80	108	7.45											73.3	4.14											89.6
	\$80 to \$180	96	10.18											100.0	5.35											115.8
	\$180 & over	45	11.36											111.8	4.06											87.9
Under \$1	Total (Average)	79	7.07											69.6	3.37											72.9
	Under \$40	15	3.01											49.3	2.93											63.9
	\$40 to \$80	43	5.77											56.8	3.21											69.6
	\$80 to \$180	18	8.74											86.0	4.16											90.0
	\$180 & over	3	7.92											79.0	2.40											51.9
\$1 to \$2	Total (Average)	100	8.46											85.3	4.23											91.6
	Under \$40	14	7.12											70.1	5.48											118.6
	\$40 to \$80	37	7.34											72.2	4.32											93.5
	\$80 to \$180	39	8.47											83.4	4.23											91.6
	\$180 & over	10	9.36											92.1	3.50											77.9
\$2 to \$3	Total (Average)	66	11.62											114.4	5.06											109.3
	Under \$40	2	5.27											51.9	2.29											49.6
	\$40 to \$80	20	9.32											91.7	5.13											112.1
	\$80 to \$180	26	11.63											116.5	6.12											132.5
	\$180 & over	18	12.07											118.8	4.47											96.8
\$3 & over	Total (Average)	37	12.33											121.6	5.15											111.5
	Under \$40	2	7.11											70.0	5.47											118.4
	\$40 to \$80	6	13.23											130.2	7.78											168.4
	\$80 to \$180	15	13.12											129.1	7.29											157.8
	\$180 & over	14	12.12											119.3	4.33											93.7

Average \$10.16

Average \$4.62

TABLE 111

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER AMOUNT SOLD
PER \$1 OF AVERAGE INVENTORY, 1918 AND 1919, FOR STORES CLASSI-
FIED BY SIZE AND BY AMOUNT OF ADVERTISING PER
\$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Selling Expense per \$100 of Total Net Sales												Selling Expense per \$100 of Total Net Sales per Amount Sold per \$1 of Average Inventory, 1918 and 1919													
			Amount	Per Cent.											Amount	Per Cent.												
				Graphic												Graphic												
				0	20	40	60	80	100	120	140	0	20	40	60	80	100	120	140	160	180	Actual						
Total (Average)	Total (Average)	232	\$10.16												100.0	\$5.13												100.0
	Under \$1	79	7.07												69.6	2.42												77.3
	\$1 to \$2	100	0.46												65.5	2.68												92.0
	\$2 to \$3	66	11.42												114.4	3.36												107.3
	\$3 & over	37	12.35												121.6	3.34												106.7
Under \$40	Total (Average)	33	6.00												69.1	2.80												89.5
	Under \$1	15	9.01												49.5	2.08												66.5
	\$1 to \$2	14	7.12												70.1	3.93												125.6
	\$2 to \$3	2	6.27												21.9	1.53												48.9
	\$3 & over	2	7.11												70.0	3.54												113.1
\$40 to \$50	Total (Average)	108	7.45												73.3	2.94												93.9
	Under \$1	43	5.77												66.8	2.25												71.9
	\$1 to \$2	37	7.34												78.2	3.02												96.5
	\$2 to \$3	20	9.32												91.7	3.67												114.1
	\$3 & over	5	13.23												150.2	3.25												167.7
\$50 to \$125	Total (Average)	98	10.16												100.0	3.53												112.8
	Under \$1	18	8.74												86.0	2.89												92.3
	\$1 to \$2	39	8.47												85.4	2.93												95.6
	\$2 to \$3	26	11.63												114.5	4.00												127.8
	\$3 & over	15	13.12												129.1	4.93												157.5
\$125 & over	Total (Average)	45	11.36												111.8	2.71												86.6
	Under \$1	3	7.92												78.0	1.73												65.3
	\$1 to \$2	10	9.36												92.1	2.39												76.4
	\$2 to \$3	18	12.07												118.8	2.96												94.6
	\$3 & over	14	12.12												119.3	2.75												87.9
			Average \$10.16												Average \$5.13													

selling expense per \$100 of total net sales for stores classified by the amounts expended for advertising is found in Table 111. The amounts are expressed for each unit sold per \$1 of average inventory, 1918 and 1919.*

It will be recalled from an earlier discussion, that inventories in terms

* The method by which this unit is computed is explained on page 4, item 18.

of sales are relatively low in the large stores. Moreover, the amounts of both advertising expense and selling expense per \$100 of total net sales have been found to be relatively high in these stores. Accordingly, when the stores are classified by size and the amounts of selling expense per \$100 of total net sales for each amount sold per \$1 of average in-

ventory, 1918 and 1919, are calculated, they are found to increase as the size of the stores increases, but by smaller amounts than selling expenses when they are expressed in terms of sales alone. The amounts of selling expense, when measured in terms of sales and in terms of sales for the amount sold per \$1 of average inventory, 1918 and 1919, increase as the amounts spent for advertising per \$100 of total net sales increase. The increases are greater when the amounts of selling expense are expressed in terms of the simple, rather than the complex, unit.

Table 111, like the tables which precede it, serves two purposes: First, to give the actual amounts of selling expense expressed in two ways; and, second, to illustrate increases or decreases in the amounts for stores when classified in the manner shown.

The relative increases in total net sales and selling expense between 1914 and 1918, and 1918 and 1919 for a group of stores having annual sales between \$20,000 and \$40,000 are

shown in Table 112 when the stores are classified with respect to the amounts of advertising expenditure per \$100 of total net sales in 1914.

Between 1914 and 1919, for the 60 stores included, sales increased 113.7 per cent., while total selling expense increased 79.9 per cent. When the amounts of selling expense are expressed in terms of sales, the average amount decreased 15.9 per cent. between 1914 and 1919. A decrease of 9.2 per cent. in the average amount of selling expense in relation to sales occurred between 1914 and 1918. This is the condition for the stores irrespective of the amounts expended for advertising in relation to sales. When the stores are classified according to the amounts of advertising expenditure per \$100 of total net sales in 1914, the percentages of decrease in selling expense per \$100 of total net sales between 1914 and 1918 vary inversely with the amounts expended for advertising in relation to sales. For the stores spending less than \$1 per \$100 of total net sales,

TABLE 112

RELATION OF SELLING EXPENSE TO TOTAL NET SALES, 1919, 1918, AND 1914, FOR STORES HAVING SALES FROM \$20,000 TO \$40,000 IN 1914, CLASSIFIED BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1914

Amount of Advertising per \$100 of Total Net Sales 1914	Number of Stores	Total Net Sales						Total Selling Expense						Selling Expense per \$100 of Total Net Sales					
		1914		1918		1919		1914		1918		1919		1914		1918		1919	
		Amount	Amount	Per Cent. Increase over 1914	Amount	Per Cent. Increase over 1914	Amount	Amount	Per Cent. Increase over 1914	Amount	Per Cent. Increase over 1914	Amount	Per Cent. Increase over 1914	Amount	Amount	Per Cent. Increase from 1914	Amount	Per Cent. Increase from 1914	
Total (Average)	60	\$1,721,456	\$2,608,966	61.6	\$5,679,474	113.7	\$155,537	\$215,762	37.6	\$379,437	76.9	\$9.02	\$6.19	- 9.2	\$7.69	15.9			
Under \$1	16	479,026	666,409	39.1	997,820	109.3	31,704	41,864	32.0	55,021	67.2	6.62	6.20	6.1	6.31	19.8			
\$1 to \$2	24	663,167	1,014,242	52.9	1,406,492	112.1	66,312	84,163	44.3	115,753	98.5	8.79	8.50	6.6	8.23	6.4			
\$2 & over	20	579,263	928,315	60.3	1,575,162	120.1	64,521	87,745	34.3	110,663	69.4	11.28	9.45	16.2	8.68	23.0			

the decrease was 5.1 per cent.; for those spending between \$1 and \$2 it was 5.6 per cent.; and for those spending \$2 and over, 16.2 per cent. Similar, but less uniform, decreases in the amounts of selling expense per \$100 of total net sales are shown for the year 1919 over 1914 in relation to the amounts spent for advertising per \$100 of total net sales. Those which spent less than \$1 for advertising in relation to sales, decreased their selling expense, similarly measured, 19.8 per cent.; those which spent \$1 to \$2 decreased their selling expense 6.4 per cent., and those which spent \$2 and over decreased their selling expense per \$100 of total net sales 23.0 per cent.

It is not maintained that this table proves that the increased advertising expenditure caused the decrease of selling expense in relation to sales. It points to this conclusion, however, in view of the fact that between each of the years—1914 and 1918, and 1918 and 1919—the general tendency was for the decreases to become larger

as the expenditures for advertising in terms of total net sales increased.

It should be observed that the stores in Table 112 are classified according to the amounts expended for advertising in 1914 and that four years elapsed between 1914 and 1918, and a single year between 1918 and 1919. Obviously, factors other than advertising may have influenced the percentages of increase in sales and selling expense and the percentages of decrease in selling expense in terms of sales.

The method of analysis, used in Table 112, is followed in Table 113 for a group of stores which had in 1918 sales between \$40,000 and \$60,000. The purpose of this table is to show the relation, if any, between the amounts expended for advertising in terms of sales in 1918 and the extent to which selling expense in terms of sales decreased in 1919 as compared with 1918. Brief references to the details of this table will show the nature of this relationship for the 60 stores involved. Total net sales in-

TABLE 113

RELATION OF SELLING EXPENSE TO TOTAL NET SALES, 1919 AND 1918, FOR STORES HAVING SALES FROM \$40,000 TO \$60,000 IN 1918, CLASSIFIED BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1918

Amount of Advertising per \$100 of Total Net Sales 1918	Number of Stores	Total Net Sales			Total Selling Expense			Selling Expense per \$100 of Total Net Sales		
		1918	1919		1918	1919		1918	1919	
			Amount	Per Cent. Increase over 1918		Amount	Per Cent. Increase over 1918		Amount	Per Cent. Decrease from 1918
Total (Average)	60	\$2,969,558	\$4,299,028	44.8	\$243,612	\$327,559	34.5	\$8.20	\$7.62	7.1
Under \$1	23	1,151,959	1,672,332	45.2	69,911	98,569	41.0	6.07	5.89	3.0
\$1 to \$2	22	1,079,477	1,581,042	46.5	93,513	125,678	34.4	8.66	7.95	8.2
\$2 & over	15	738,122	1,045,654	41.7	80,188	103,312	28.8	10.86	9.89	8.9

creased between 1918 and 1919 by 44.8 per cent. Simultaneously, selling expense increased 34.5 per cent. The result is that selling expense per \$100 of total net sales decreased 7.1 per cent. When the stores are classified according to the amounts expended for advertising per \$100 of total net sales in 1918, the percentages of decrease become successively larger as the expenditures for advertising in relation to sales increase. For the stores which spent least, that is, under \$1, the percentage of decrease between 1918 and 1919 was 3.0. For those that spent between \$1 and \$2, the corresponding percentage of decrease was 8.2, and for those which spent \$2 and over, the decrease was 8.9 per cent. That is, as the amounts expended for advertising in terms of sales in 1918 increase, the percentages of decrease in selling expense per \$100 of total net sales between 1918 and 1919 become larger. It will be noted from this table that the size of the stores involved in each of the years is substantially the same, hence store-size does not explain the decrease to which attention is called. The same observation applies to the detail in Table 112.

If Tables 112 and 113 are considered as a unit, it seems reasonable to conclude that for the stores in question, relatively large amounts of advertising expenditure in terms of sales accompany, if they do not determine, large decreases in selling expense in terms of sales. Obviously, there is a limit beyond which amounts of selling expense per \$100 of total net sales

cannot be reduced by increasing expenditures for advertising. What that limit is, the tables do not reflect. Neither can they be used to prove that large amounts of advertising expenditure will reduce selling expense. They do show, however, a definite relationship between advertising expenditures and selling expense which could hardly have occurred with the regularity shown in the tables without some close, if not causal, relationship existing between them.

In confirmation of the conclusions drawn from Tables 112 and 113, Table 114 is presented. The basis for the classification of the 154 stores is the amounts expended for advertising per \$100 of total net sales in 1914, but no account is taken of store size. In interpreting this table, it should be remembered that the larger the store, other things being equal, the greater the increase in total net sales from year to year. Similarly, the larger the store, the greater the increase in selling expense from year to year. Moreover, it should be borne in mind, generally speaking, that the larger the store, the greater the expenditure for advertising per \$100 of total net sales. Accordingly, when the stores are grouped irrespective of size and are classified by amounts expended for advertising per \$100 of total net sales, the seeming effect of advertising expenditures on the amount of selling expense in relation to sales may be due, in part at least, to the size of the store. It has been thought worth-while, however, in spite of the limitations of such a clas-

sification, to present Table 114 because, in a general way, it confirms the conclusions drawn from Tables 112 and 113.

For the 154 stores, the amounts of sales for the entire group increased between 1914 and 1918 by 59.4 per cent. and between 1914 and 1919 by 126.4 per cent. The corresponding percentage increases in selling expense between the respective years

the amounts expended for advertising increase. Similar conditions obtain for the percentage increases in selling expense for the respective years. When the amounts of selling expense are shown in terms of total net sales, however, the percentage decreases become larger as the amounts spent for advertising in terms of sales increase. To this general rule, between 1914 and 1918, there is but one im-

TABLE 114

RELATION OF SELLING EXPENSE TO TOTAL NET SALES, 1919, 1918, AND 1914, FOR STORES CLASSIFIED BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES IN 1914

Amount of Advertising per \$100 of Total Net Sales 1914	Number of Stores	Total Net Sales		Total Selling Expense		Selling Expense per \$100 of Total Net Sales				
		Per Cent. Increase over 1914		Per Cent. Increase over 1914		Amount			Per Cent. Change from 1914	
		1918	1919	1918	1919	1914	1918	1919	1918	1919
Total (Average)	154	59.4	126.4	51.9	106.0	\$11.48	\$10.94	\$10.44	-4.7	-9.1
Under \$1	27	30.7	93.1	34.2	84.4	6.62	6.80	6.17	+2.7	-6.8
\$1 to \$2	52	56.5	114.6	45.9	100.9	9.85	9.17	9.20	-6.7	-6.4
\$2 to \$3	36	44.6	112.7	45.5	95.1	10.79	10.70	9.79	-0.8	-9.3
\$3 & over	39	76.4	151.9	61.4	117.6	14.49	13.03	12.51	-10.1	-13.7

were 51.9 and 106.0. When the amounts of selling expense are determined for each \$100 of total net sales, they are found to have decreased between 1914 and 1918 by 4.7 per cent. and between 1914 and 1919 by 9.1 per cent.

When the stores are classified by expenditures for advertising per \$100 of total net sales, the percentage increases in sales become larger between 1914 and 1918, and 1914 and 1919, as

portant exception. Between 1914 and 1919 the percentage decreases, with an unimportant exception, become larger as the amounts spent for advertising increase. For the stores which spent least for this purpose, the amounts of selling expense per \$100 of total net sales decreased between 1914 and 1919 by 6.8 per cent., while for those which spent most, that is, \$3 and over, the corresponding decrease was 13.7 per cent.

Tables 112 to 114, inclusive, should be considered in the light of the discussion concerning them. In Table 114 the elements which determine the decreases in selling expense are less likely to be the amounts spent for advertising than in the other tables.

The amounts of selling expense for stores classified by size and by expen-

ditures for advertising per \$100 of total net sales may also be shown in terms of total expense and in terms of total expense per stock turnover. This is done in Table 115. So far as any unmistakable tendency for the amounts to increase or decrease under different conditions of advertising expenditure is concerned, the results of

TABLE 115

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER STOCK TURNOVER,
 FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF ADVERTISING
 PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Selling Expense per \$100 of Total Expense						Selling Expense per \$100 of Total Expense per Stock Turnover															
			Amount	Per Cent.						Amount	Per Cent.													
				Graphic							Graphic													
				0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120	140	160	Actual			
Total (Average)	Total (Average)	222	\$48.74							100.0	\$22.15													100.0
	Under \$1	79	43.42							89.1	20.68													93.4
	\$1 to \$2	100	47.06							96.6	23.53													106.2
	\$2 to \$3	66	51.60							105.9	22.43													101.3
	\$3 & over	37	49.15							100.8	20.48													92.5
Under \$40	Total (Average)	33	35.10							72.0	23.40													105.6
	Under \$1	15	34.55							70.9	20.32													91.7
	\$1 to \$2	14	39.05							80.1	30.04													135.6
	\$2 to \$3	2	24.24							49.7	10.54													47.6
	\$3 & over	2	28.76							59.0	22.12													99.9
\$40 to \$60	Total (Average)	106	41.79							65.7	23.22													104.8
	Under \$1	43	37.87							77.7	21.04													95.0
	\$1 to \$2	37	40.49							85.1	23.82													107.5
	\$2 to \$3	20	45.16							92.7	25.09													115.3
	\$3 & over	6	54.13							111.1	31.84													145.7
\$60 to \$120	Total (Average)	98	61.66							106.0	27.19													122.8
	Under \$1	18	50.87							104.4	24.22													109.3
	\$1 to \$2	39	48.19							98.9	24.10													108.8
	\$2 to \$3	26	54.10							110.0	28.47													128.5
	\$3 & over	15	54.45							111.7	30.24													136.5
\$120 & over	Total (Average)	45	49.55							101.7	17.70													79.9
	Under \$1	3	44.09							90.5	13.56													60.3
	\$1 to \$2	10	50.83							104.3	19.55													88.3
	\$2 to \$3	18	51.66							106.0	19.13													86.4
	\$3 & over	14	47.57							97.6	16.99													76.7
			Average \$48.74												Average \$22.15									

the table are inconclusive. The actual amounts, however, are of interest and for this reason the table is included in this study.

B.—Yearly Amounts of Selling Expense per \$100 of Total Net Sales and per \$100 of Total Expense, for Stores Classified by Size of City in Which Located, 1919.*

When the 282 stores are classified according to their location in two city-groups and by the amount of advertising expenditure per \$100 of total net sales, as in Table 116, it is found

* Population figures are for 1920.

that the amounts of selling expense per \$100 of total net sales are less for the stores in the small cities than for those in the large cities, when treated as a total and when classified by the amounts expended for advertising in relation to sales. To this general rule there are no exceptions. It should be noted that no attention is paid in this connection to the size of the stores, except as it is indirectly reflected in the amounts expended for advertising per \$100 of total net sales. With this in mind, it is difficult to assign, as between expenditures for advertising and the size of the stores, the causes for these increases. It is sufficient at

TABLE 116

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919

Size of City, (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Selling Expense per \$100 of Total Net Sales												Selling Expense per \$100 of Total Net Sales per Stock Turnover															
			Amount	Per Cent.											Amount	Per Cent.														
				Graphic												Graphic														
				0	20	40	60	80	100	120	140	0	20	40		60	80	100	120	140	160									
Total (Average)	Total (Average)	282	\$10.16												100.0	\$4.62												100.0		
	Under \$1	79	7.07												69.6	3.37												72.9		
	\$1 to \$2	100	8.46												83.3	4.23												91.6		
	\$2 to \$3	66	11.62												114.4	5.05												109.3		
	\$3 & over	37	12.35												121.6	5.15												111.5		
Under 40	Total (Average)	204	6.61												64.7	4.53												96.1		
	Under \$1	72	6.79												66.8	3.39												73.4		
	\$1 to \$2	79	8.27												81.4	4.59												99.4		
	\$2 to \$3	39	10.37												102.1	5.76												124.7		
	\$3 & over	14	11.95												117.6	7.03												152.2		
40 and over	Total (Average)	78	11.55												113.7	4.44												96.1		
	Under \$1	7	8.70												85.6	3.40												75.3		
	\$1 to \$2	21	8.81												86.7	3.52												76.2		
	\$2 to \$3	27	12.36												121.7	4.75												102.8		
	\$3 & over	23	12.41												122.1	4.77												103.2		
			Average \$10.16														Average \$4.62													

this time to call attention to the fact as stated.












When the amounts of selling expense per \$100 of total net sales are computed for each stock turnover, the average amount is higher for the stores in the small than for those in the large cities, and this condition obtains with one exception for the stores with the same amount of advertising, but located in different-sized cities. That is, while the amounts of selling expense per \$100 of total net sales are generally higher for the stores in the large cities, the high turnover in these stores serves to compensate for this disadvantage,

thus making the amounts smaller per stock turnover.

The association between the amounts of advertising expenditure per \$100 of total net sales and the amounts of selling expense, similarly expressed, for stores classified by location is brought out in Table 117. This table shows first, that the amounts of advertising per \$100 of total net sales are higher for the stores in the large than for those in the small cities, both when treated as a total and when considered by amounts of selling expense per \$100 of total net sales. Second, in both of the city-groups the amounts of advertising expenditure per \$100

TABLE 117

TOTAL NET SALES, ADVERTISING EXPENSE, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR STORES CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL NET SALES, 1919

Size of City (in 000's)	Amount of Selling Expense per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Advertising Expense	Advertising per \$100 of Total Net Sales								
					Amount	Per Cent.							Actual
						Graphic							
					0 20 40 60 80 100 120 140 160 180								
Total (Average)	Total (Average)	282	\$35,563,014	\$799,944	\$2.25								100.0
	Under \$6	71	4,383,266	45,371	0.99								44.0
	\$6 to \$12	155	21,000,010	433,232	2.06								91.6
	\$12 & over	56	10,179,738	323,341	3.18								141.3
Under 40	Total (Average)	204	16,862,679	267,754	1.59								70.7
	Under \$6	66	3,639,885	35,495	0.98								43.6
	\$6 to \$12	110	10,203,111	167,092	1.64								72.9
	\$12 & over	28	3,019,683	65,167	2.16								96.0
40 and over	Total (Average)	78	18,700,335	532,190	2.85								126.7
	Under \$6	5	743,381	7,876	1.06								47.1
	\$6 to \$12	45	10,796,899	266,140	2.46								109.3
	\$12 & over	28	7,160,055	258,174	3.61								160.4
Average \$2.25													

of total net sales increase directly with the amounts of selling expense per \$100 of total net sales.

In Table 118 the amounts of selling expense for stores classified by size of city and by the amount expended for advertising in relation to sales are shown first as proportions of total expense and second, in relation to total expense per stock turnover. Within each city-group and for the total, the amounts of selling expense per \$100 of total expense increase with a few exceptions as the amounts expended for advertising per \$100 of total net sales increase. When the size of the city alone is considered,

the amount of selling expense per \$100 of total expense is lower in the small than in the large cities, although group by group, the average amounts are larger in the stores in the small than for those in the large cities. When the amounts are expressed in terms of stock turnover, they are higher in the small than in the large cities for the stores as a total and for the individual groups. The latter condition is due primarily to the slow turnover which characterizes the stores in the small cities.

The tendencies for the amounts, as shown in Table 118, to increase or decrease are inconclusive in some re-

TABLE 118

AMOUNT OF SELLING EXPENSE PER \$100 OF TOTAL EXPENSE PER STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919

Size of City (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Selling Expense per \$100 of Total Expense										Selling Expense per \$100 of Total Expense per Stock Turnover									
			Amount	Per Cent.					Actual	Amount	Per Cent.									Actual		
				Graphic							Graphic											
				0	20	40	60	80			100	120	0	20	40	60	80	100	120		140	160
Total (Average)	Total (Average)	282	\$49.74						100.0	\$22.15										100.0		
	Under \$1	79	43.42						89.1	23.68										93.4		
	\$1 to \$2	100	47.06						96.6	23.53										106.2		
	\$2 to \$3	66	51.60						105.9	22.43										101.3		
	\$3 & over	37	49.15						100.8	20.48										92.5		
Under 40	Total (Average)	204	49.37						99.2	25.44										114.9		
	Under \$1	72	44.64						91.6	22.32										100.8		
	\$1 to \$2	79	47.60						97.7	26.44										119.4		
	\$2 to \$3	39	50.82						104.3	26.23										127.4		
	\$3 & over	14	54.26						111.3	31.92										144.1		
40 and over	Total (Average)	79	43.02						100.6	13.85										85.1		
	Under \$1	7	31.62						79.2	15.45										69.8		
	\$1 to \$2	21	46.14						94.7	18.46										83.3		
	\$2 to \$3	27	51.99						100.7	20.00										90.3		
	\$3 & over	25	48.44						99.4	18.63										84.1		
			Average \$49.74										Average \$22.15									

spects. This, however, does not detract from the value of the table for the second purpose for which it is prepared, namely, to show norms or standards of selling expense distribution, as measured by simple and complex units. In many respects the more refined the measure used to express the amounts of selling expense, the more significant become the results.

C.—Summary.

- (1). For all stores and for stores classified by size, the amounts of selling expense per \$100 of total net sales increase as the amounts of advertising per \$100 of total net sales increase.
- (2). The amounts of selling expense per \$100 of advertising decrease as the amounts of advertising per \$100 of total net sales increase. This holds for all stores and also for stores of a given size.
- (3). When stores are classified by size and by expenditures for advertising, the amounts of selling expense per \$100 of total net sales and per \$100 of sales per stock turnover increase as the expenditures for advertising increase.
- (4). For stores with a given expenditure for advertising per \$100 of total net sales, the amounts of selling expense per \$100 of total net sales and

also per \$100 of total net sales per stock turnover increase as the stores increase in size.

- (5). For stores of a given size, selling expenses per \$100 of total net sales for the amount sold per \$1 of average inventory, increase as the amounts of advertising per \$100 of total net sales increase.
- (6). From year to year, for stores of a given size, relatively high amounts of advertising expenditure in terms of sales accompany large decreases in selling expense in terms of sales.
- (7). In terms of total expense and of total expense per stock turnover, the amounts of selling expense show no decided tendency either to increase or to decrease as the amounts of advertising per \$100 of total net sales increase.
- (8). Selling expense in terms of sales alone is higher for stores in large cities than it is for those in small cities. In terms of sales per stock turnover, the amount is higher in small than in large cities. This holds for all stores and for stores with a given amount of advertising per \$100 of total net sales.
- (9). For stores with a given amount of advertising ex-

penditure per \$100 of total net sales, selling expense in terms of total expense is higher in small than in large cities.

- (10). Selling expense in terms of total expense per stock turnover is higher for stores in

small cities than it is for stores in large cities.

- (11). In both small and large cities, selling expenses in terms of total expense alone and of total expense per stock turnover increase as the amounts of advertising per \$100 of total sales increase.

IV. WAGES AND SALARIES CHARGEABLE TO SELLING

1.—AMOUNTS OF WAGES AND SALARIES FOR STORES CLASSIFIED BY YEARS, BY SIZE, AND BY LOCATION.

“Wages and salaries” includes all forms of compensation paid to regular and extra salesmen and that part of the compensation of proprietors, bookkeepers, and others which is properly chargeable to selling. In some of the small stores it was impossible to apportion the salaries paid to proprietors according to the functions performed, and in such cases the entire salary is included. This fact will help to explain, in some instances, the size of the amount of wages and salaries expressed in terms of sales and selling expense for the group of stores with small annual sales. It is felt, however, that the error does not seriously affect the totals inasmuch as most, if not all, of the time of the

proprietors in the very small stores is given to selling or to supervising selling.





A.—*Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, 1919, 1918, and 1914.*

The records of 154 identical stores for the years 1914, 1918, and 1919 are available for the study of the amounts of wages and salaries chargeable to selling. In Table 119 these amounts are expressed in terms of sales. In 1914 it cost \$7.52 in wages and salaries to sell \$100 worth of goods. In 1918 it cost \$7.37, and in 1919, \$6.98. That is, between 1914 and 1918, and 1918 and 1919, the amounts relative to sales decreased.

For the 154 stores, as is shown in Table 120, the average amount of total net sales per store increased be-

TABLE 119

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES, 1919, 1918, AND 1914

Years	Number of Store-years	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales						
				Amount	Per Cent.					
					Graphic					Actual
					0	20	40	60	80	
Total (Average)	462	\$44,835,499	\$3,235,181	\$7.22						100.0
1919	154	20,892,764	1,457,504	6.98						96.7
1918	154	14,714,515	1,084,125	7.37						102.1
1914	154	9,228,220	693,552	7.52						104.2

Average \$7.22

TABLE 120

AVERAGE AMOUNT AND PER CENT. INCREASE OR DECREASE OF TOTAL NET SALES AND WAGES AND SALARIES PER STORE, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES, 1919, 1918, AND 1914

Years	Average Amount of Total Net Sales per Store								Average Amount of Wages and Salaries per Store								Average Amount of Wages and Salaries per \$100 of Total Net Sales													
	Amount	Per Cent. Increase over 1914								Amount	Per Cent. Increase over 1914								Amount	Per Cent. Decrease from 1914										
		Graphic									Graphic									Graphic										
		Actual	0	20	40	60	80	100	120		140	Actual	0	20	40	60	80	100		120	Actual	0	20	40	60	80	100	120		
1919	\$135,667	126.4	<div></div>								\$9,464	110.1	<div></div>								\$6.98	7.2	<div></div>							
1918	95,549	59.5	<div></div>								7,040	56.3	<div></div>								7.37	2.0	<div></div>							
1914	\$9,504										4,504										7.52									

tween 1914 and 1918 by 59.5 per cent. and between 1914 and 1919 by 126.4 per cent. The corresponding percentages of increase in wages and salaries for the respective years were 56.3 and 110.1. That is, in 1918 and 1919, when compared with 1914, for the same stores, wages and salaries increased less than total net sales. Accordingly, when the amounts of wages and salaries per \$100 of total net sales are determined for the stores in the different years, the percentage of decrease between 1914 and 1918 is 2.0 and between 1914 and 1919, 7.2.

Simultaneous with the increases in wages and salaries, total selling ex-

pense for the same stores increased 51.9 per cent. between 1914 and 1918, and 106.0 per cent. between 1914 and 1919. When the amounts of wages and salaries are expressed per \$100 of selling expense the average amount in 1914 was \$65.47, in 1918 \$67.35, and in 1919 \$66.80. That is, between 1914 and 1918 the amounts increased 2.9 per cent. and between 1914 and 1919, 2.0 per cent. These amounts are shown in Table 121.

Summarizing Tables 119 to 121, inclusive, one may conclude first, that the amounts of wages and salaries per \$100 of total net sales decreased between 1914 and 1918, and 1918 and

TABLE 121

AVERAGE AMOUNT AND PER CENT. INCREASE OF SELLING EXPENSE AND WAGES AND SALARIES PER STORE, AND OF AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE, FOR 154 IDENTICAL STORES, 1919, 1918, AND 1914

Years	Average Amount of Selling Expense per Store								Average Amount of Wages and Salaries per Store								Average Amount of Wages and Salaries per \$100 of Selling Expense													
	Amount	Per Cent. Increase over 1914								Amount	Per Cent. Increase over 1914								Amount	Per Cent. Increase over 1914										
		Graphic									Graphic									Graphic										
		Actual	0	20	40	60	80	100	120		Actual	0	20	40	60	80	100	120		Actual	0	20	40	60	80	100	120			
1919	\$14,169	106.0									\$9,464	110.1									\$66.90	8.0								
1918	10,452	61.9									7,040	56.3									67.35	2.9								
1914	6,979										4,504										65.47									

1919, while per \$100 of selling expense they increased between 1914 and 1918 and decreased between 1918 and 1919. Second, based upon a three-year experience of 154 stores, it cost in wages and salaries, on an average, \$7.22 to sell \$100 worth of goods. Third, the part of total selling expense, properly chargeable to wages and salaries, constitutes, on the average, for the years in question, \$66.69, or approximately two-thirds of the total. (Table 123.)

B.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense for Stores in 1919, 1918, and 1914, Classified by Size.

When the 154 stores are classified by size and the amounts of wages and salaries per \$100 of total net sales are computed for each year, as in Table 122, it is found that decreases in 1918 and 1919, compared with 1914, characterize each group, with but a single exception. The average amount for all of the stores is \$7.22. For those with sales under \$40,000 it is \$5.91; for those with sales of \$40,000 to \$80,000, \$6.51; for those with sales of \$80,000 to \$180,000, \$7.26; and for those with sales of \$180,000 and over, \$7.84. Similar differences for stores of different size hold in each of the years.

Table 123 shows for each group of stores, classified by size, the amounts of wages and salaries per \$100 of selling expense in each of the years. In every group, the amount in 1918 was higher than in 1914. In the

smallest and in the largest stores the amounts were less in 1919 than in 1918. In the other two groups, however, the reverse condition obtains. In all the groups but one, the amounts were higher in 1919 than in 1914.

As the stores increase in size, the amounts of wages and salaries per \$100 of selling expense over the whole range decrease. The average for the three-year period for all the stores is \$66.69. For the three years for the small stores it is \$69.56 and for the others in order of size, as familiarly grouped, \$69.67, \$66.61, and \$65.06. From year to year in the groups classified by size, the amounts closely correspond to the total; the largest amount being 8.0 per cent. in excess of the average and the smallest 8.9 per cent. less than the average.

*C.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores in 1919, 1918, and 1914, Classified by Size of City in Which Located.**

It is of interest to compare the relation of wages and salaries to sales and to selling expenses from year to year for the 154 stores under consideration when they are classified by the size of the city in which they are located. This is done in Tables 124 to 127, inclusive.

The 115 stores located in the small cities increased their sales between 1914 and 1918 by 49.4 per cent., and between 1914 and 1919 by 109.4 per

* Population figures are for 1920.

TABLE 122

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER
\$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED
BY SIZE, 1919, 1918, AND 1914

Classified Total Net Sales (in 000's)	Years	Number Store- years	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales							
					Amount	Per Cent.						
						Graphic						Actual
0 20 40 60 80 100 120												
Total (Average)	Total (Average)	462	\$44,835,499	\$3,235,181	\$7.22	<div></div>						100.0
	1919	154	20,892,764	1,457,504	6.98	<div></div>						96.7
	1918	154	14,714,515	1,084,125	7.37	<div></div>						102.1
	1914	154	9,228,220	693,552	7.52	<div></div>						104.2
Under \$40	Total (Average)	129	3,590,553	212,119	5.91	<div></div>						81.9
	1919	14	428,714	19,303	4.50	<div></div>						62.3
	1918	42	1,256,795	71,393	5.68	<div></div>						78.7
	1914	73	1,905,044	121,423	6.37	<div></div>						88.2
\$40 to \$80	Total (Average)	172	9,775,007	636,359	6.51	<div></div>						90.2
	1919	57	3,222,468	177,277	5.50	<div></div>						76.2
	1918	63	3,662,794	240,074	6.55	<div></div>						90.7
	1914	52	2,889,745	219,008	7.58	<div></div>						105.0
\$80 to \$180	Total (Average)	117	13,695,639	993,697	7.26	<div></div>						100.6
	1919	58	6,866,815	492,942	7.18	<div></div>						99.4
	1918	35	4,090,203	291,057	7.12	<div></div>						98.6
	1914	24	2,738,621	209,698	7.66	<div></div>						106.1
\$180 & over	Total (Average)	44	17,774,300	1,393,006	7.84	<div></div>						108.6
	1919	25	10,374,767	767,982	7.40	<div></div>						102.5
	1918	14	5,704,723	461,601	8.44	<div></div>						116.9
	1914	5	1,694,810	142,423	8.46	<div></div>						117.2

Average \$7.22

cent. The corresponding increases in wages and salaries in both years when compared with 1914 were 43.2 and 88.6 per cent., respectively. That is, the increases in wages and salaries were less than were those in sales.

Accordingly, when the amounts of wages and salaries are expressed in terms of sales they decreased 4.2 per cent. between 1914 and 1918, and 10.0 per cent. between 1914 and 1919.

The 39 stores located in the larger

cities increased their sales between 1914 and 1918 by 70.3 per cent. and between 1918 and 1919 by 144.6 per cent. The wages and salaries in these same stores increased between 1914 and 1918 by 68.9 per cent., and be-

tween 1914 and 1919 by 130.8 per cent. That is, the percentage increases are less in wages and salaries than in sales for both 1918 and 1919 as compared with 1914. If the amounts of wages and salaries are expressed in

TABLE 123

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE, 1919, 1918, AND 1914

Classified Total Net Sales (in 000's)	Years	Number of Store- years	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.							
						Graphic							Actual
0 20 40 60 80 100 120													
Total (Average)	Total (Average)	462	\$4,851,112	\$3,235,181	\$66.69	<div></div>							100.0
	1919	154	2,182,027	1,457,504	66.80	<div></div>							100.2
	1918	154	1,609,671	1,084,125	67.35	<div></div>							101.0
	1914	154	1,059,414	693,552	65.47	<div></div>							98.2
Under \$40	Total (Average)	129	304,954	212,119	69.56	<div></div>							104.3
	1919	14	29,018	19,303	66.52	<div></div>							99.7
	1918	42	101,621	71,393	70.25	<div></div>							105.3
	1914	73	174,315	121,423	69.66	<div></div>							104.5
\$40 to \$80	Total (Average)	172	913,357	636,359	69.67	<div></div>							104.5
	1919	57	246,207	177,277	72.00	<div></div>							108.0
	1918	63	345,293	240,074	69.53	<div></div>							104.3
	1914	52	321,857	219,008	68.05	<div></div>							102.0
\$80 to \$180	Total (Average)	117	1,491,801	993,697	66.61	<div></div>							99.9
	1919	58	719,436	492,942	68.52	<div></div>							102.7
	1918	35	445,138	291,057	65.39	<div></div>							98.1
	1914	24	327,227	209,698	64.08	<div></div>							96.1
\$180 & over	Total (Average)	44	2,141,000	1,393,006	65.06	<div></div>							97.6
	1919	25	1,187,366	767,982	64.68	<div></div>							97.0
	1918	14	717,619	481,601	67.11	<div></div>							100.6
	1914	5	236,015	143,423	60.77	<div></div>							91.1

Average \$66.69

terms of sales, they decreased between 1914 and 1918 by 0.8 per cent., and between 1914 and 1919 by 5.7 per cent.

The wages and salaries in terms of sales for the stores in the small, and for those in the large cities decreased in each of the years 1918 and 1919 as compared with 1914. The decrease was smaller, however, for the stores in the large, than for those in the small cities, notwithstanding the fact that the percentage increases in sales for the stores in the large cities for each of the years 1918 and 1919, as compared with 1914, exceeded those for the stores in the small cities by 20.9 and 35.2 per cent., respectively. The compensating feature is the relatively smaller increase in wages and salaries in the stores in the small cities. The net result is as stated; the stores in the small cities decreased their wages and salaries in terms of

sales more than those in the large cities.

A comparison similar to that in Table 124 is presented in Table 125. The 115 stores in the small cities increased their selling expense in 1918 over 1914 by 40.8 per cent., and in 1919 over 1914 by 85.4 per cent. The corresponding percentage increases for wages and salaries were, respectively, 43.2 and 88.6. When the amounts of wages and salaries attributable to selling are expressed in terms of selling expense, they are found to have increased between 1914 and 1918, and between 1914 and 1919 by 1.7 per cent.

The 39 stores in the large cities increased their selling expense between 1914 and 1918 by 61.3 per cent., and between 1914 and 1919 by 123.2 per cent. Simultaneously, they increased their wages and salaries in 1918 over 1914 by 68.9 per cent., and in 1919

TABLE 124

RELATION OF WAGES AND SALARIES TO TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Stores	Net Sales			Wages and Salaries				
			Total	Average Amount per Store		Total	Average Amount per Store		Per \$100 of Total Net Sales	
				Amount	Per Cent. Increase over 1914		Amount	Per Cent. Increase over 1914	Amount	Per Cent. Decrease from 1914
Total (Average)	1919	154	\$20,892,764	\$135,667	126.4	\$1,457,504	\$9,464	110.1	\$6.98	7.2
	1918	154	14,714,515	95,549	59.5	1,064,125	7,040	56.3	7.37	2.0
	1914	154	9,228,220	59,924		693,552	4,504		7.52	
Under 40	1919	115	10,005,585	87,005	109.4	640,451	5,569	88.6	6.40	10.0
	1918	115	7,136,283	62,055	49.4	486,176	4,228	43.2	6.61	4.2
	1914	115	4,777,138	41,540		339,596	2,953		7.11	
40 and over	1919	39	10,667,179	279,158	144.6	817,053	20,950	130.8	7.50	5.7
	1918	39	7,578,232	194,314	70.3	597,949	15,332	68.9	7.89	0.8
	1914	39	4,451,082	114,130		355,956	9,076		7.95	

over 1914 by 130.8 per cent. That is, wages and salaries in both years increased more rapidly than did selling expense. The consequence is that when amounts of wages and salaries are expressed per \$100 of selling expense, they increased between 1914 and 1918 by 4.7 per cent., and between 1918 and 1919 by 3.4 per cent.

As is shown in Table 124, the stores in the small cities were at an advantage over those in the large cities in the amounts of wages and salaries paid when they are expressed in terms of total net sales. An inverse condition is found, as shown in Table 125, when the amounts of wages and salaries are expressed in terms of selling expense.

The same 154 stores are classified by size of city in which they are located and by years in Tables 126 and 127. Table 126 shows the amounts

of wages and salaries per \$100 of total net sales for stores in each city-group in each of the years. For the 115 stores in the small cities, the amounts decreased between 1914 and 1918, and 1918 and 1919. Similarly, the amounts for the 39 stores in the large cities decreased from year to year. The average amount of wages and salaries per \$100 of total net sales for the 345 store-years for stores located in small cities is \$6.69, or 92.7 per cent. of the average for all stores; for the 117 store-years for stores in the large cities it is \$7.72, or 106.9 per cent. of the average. Corresponding differences between the stores in the small and in the large cities are found for each year.

In Table 127 the stores are classified as in Table 126, but the amounts of wages and salaries are expressed per \$100 of selling expense. The average

TABLE 125

RELATION OF WAGES AND SALARIES TO SELLING EXPENSE FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Stores	Selling Expense			Wages and Salaries				
			Total	Average Amount per Store		Total	Average Amount per Store		Per \$100 of Selling Expense	
				Amount	Per Cent. Increase over 1914		Amount	Per Cent. Increase over 1914	Amount	Per Cent. Increase over 1914
Total (Average)	1919	154	\$2,183,027	\$14,169	106.0	\$1,457,504	\$9,464	110.1	\$66.80	2.0
	1918	154	1,609,671	10,452	51.9	1,084,125	7,040	56.3	67.35	2.9
	1914	154	1,059,414	6,879		693,552	4,504		65.47	
Under 40	1919	115	896,863	7,799	85.4	640,451	5,569	88.6	71.41	1.7
	1918	115	680,787	5,920	40.8	466,176	4,228	43.2	71.41	1.7
	1914	115	463,712	4,206		339,596	2,953		70.21	
40 and over	1919	39	1,285,164	32,953	123.2	817,053	20,950	130.8	63.58	3.4
	1918	39	928,884	23,818	61.3	597,949	15,332	68.9	64.37	4.7
	1914	39	575,702	14,762		353,956	9,076		61.48	

amount for the 345 store-years, for the stores in the small cities, is \$71.13, for the 117 store-years, for the stores located in the large cities, it is \$63.41. That is, the amount for the stores in the small cities is 106.7 per cent., and for those in the large cities, 95.1 per cent. of the average for all stores. Similar differences for the stores in the different cities occur in each of the different years. In 1919, for instance, the average amount for the 115 stores in the small cities was \$71.41, and for the 39 stores in the large cities, \$63.58.

From Tables 124 to 127, inclusive, it may be concluded first, that total net sales and wages and salaries for the stores when classified by location increased between 1914 and 1918 and between 1914 and 1919. Second, the amounts of wages and salaries per \$100 of total net sales decreased between 1914 and 1918, and 1914 and 1919, the decrease being noticeably larger for the stores in the small than for those in the large cities. Third, amounts of selling expense and of wages and salaries increased between 1914 and 1918, and 1914 and 1919 for

TABLE 126

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914













Size of City (in 000's)	Years	Number of Store-years	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales		
					Amount	Per Cent.	
						Graphic	Actual
						0 20 40 60 80 100 120	
Total (Average)	Total (Average)	462	\$44,835,499	\$3,235,181	\$7.22		100.0
	1919	154	20,892,764	1,457,504	6.98		96.7
	1918	154	14,714,515	1,084,125	7.37		102.1
	1914	154	9,228,220	693,552	7.52		104.2
Under 40	Total (Average)	345	21,919,006	1,466,223	6.69		92.7
	1919	115	10,005,585	340,451	6.40		88.6
	1918	115	7,136,283	486,176	6.81		94.3
	1914	115	4,777,138	339,536	7.11		98.5
40 and over	Total (Average)	117	22,916,493	1,768,958	7.72		106.9
	1919	39	10,887,179	817,053	7.50		103.9
	1918	39	7,578,232	597,949	7.89		109.3
	1914	39	4,451,082	353,956	7.95		110.1
Average \$7.22							

TABLE 127

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Store-years	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	462	\$4,851,112	\$3,235,181	\$66.69								100.0
	1919	154	2,182,027	1,457,504	66.80								100.2
	1918	154	1,609,671	1,084,125	67.35								101.0
	1914	154	1,059,414	693,552	65.47								98.2
Under 40	Total (Average)	345	2,061,362	1,466,223	71.13								106.7
	1919	115	896,863	640,451	71.41								107.1
	1918	115	680,787	486,176	71.41								107.1
	1914	115	483,712	339,596	70.21								105.3
40 and over	Total (Average)	117	2,789,750	1,768,958	63.41								95.1
	1919	39	1,285,164	817,053	63.58								95.3
	1918	39	923,884	597,949	64.37								96.5
	1914	39	575,702	355,956	61.48								92.2

Average \$66.69

the groups of stores when classified by location. Fourth, the amounts of wages and salaries per \$100 of selling expense increased for the two groups of stores between 1914 and 1918, and 1914 and 1919, the percentage of increase being larger for the stores in the large than for those in the small cities. Fifth, the amounts of wages and salaries per \$100 of total net sales are less in the combined and in the individual years for the stores in the small, than for those in the large cities. Sixth, the amounts of wages and salaries per \$100 of selling ex-

pense are less for the combined and individual years for the stores in the large cities than for those in the small cities.

D.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size and by Size of City in Which Located, 1919, 1918, and 1914.*

In Tables 128 to 131, inclusive, the amounts of wages and salaries per \$100 of total net sales are shown for

* Population figures are for 1920.

the combined and individual years for 154 stores classified by location and by size. Table 128 refers to the combined years and Tables 129 to 131, respectively, to the years 1919, 1918, and 1914.

The average amounts of wages and salaries per \$100 of total net sales for the 462 store-years is \$7.22. When the stores are classified by size, no account being taken of location, the amounts increase as the stores increase in size, the minimum—\$5.91—

characterizing the stores with smallest, and the maximum—\$7.84—characterizing those with largest sales. In 1919 the average was \$6.98. For the stores with the smallest sales it was \$4.50 and for those with the largest sales, \$7.40. It is unnecessary to mention the actual amounts for 1918 and 1914. The details for each of the years are contained in the total sections of the tables mentioned.

When the stores are classified by location for the combined and indi-

TABLE 128

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919, 1918, AND 1914 COMBINED

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Store-years	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales								
					Amount	Per Cent.						Actual	
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	462	\$44,835,499	\$3,235,181	\$7.22							100.0	
	Under \$40	129	3,590,553	212,119	5.91							81.9	
	\$40 to \$80	172	9,775,007	636,359	6.51							90.2	
	\$80 to \$180	117	13,695,639	992,697	7.26							100.6	
	\$180 & over	44	17,774,300	1,393,006	7.84							108.6	
Under 40	Total (Average)	345	21,919,006	1,466,223	6.69							92.7	
	Under \$40	121	3,317,338	189,020	5.73							79.4	
	\$40 to \$80	138	7,650,532	481,917	6.30							87.3	
	\$80 to \$180	77	8,632,022	628,311	7.11							98.5	
	\$180 & over	9	2,119,114	166,075	7.84							108.6	
40 and over	Total (Average)	117	22,916,493	1,769,958	7.72							106.9	
	Under \$40	8	273,215	22,199	8.13							112.6	
	\$40 to \$80	34	2,024,475	154,442	7.63							105.7	
	\$80 to \$180	40	4,963,617	365,386	7.36							101.9	
	\$180 & over	35	15,655,186	1,296,931	7.84							108.6	

Average \$7.22

vidual years, a somewhat different condition is observed. For the combined years, the average amount of wages and salaries per \$100 of total net sales for the 345 store-years for the stores in the small cities is \$6.69, and for the 117 store-years for the stores in the large cities, \$7.72. That is, the average amount for the stores in the small cities is 92.7 per cent., and for the stores in the large cities it is 106.9 per cent. of the average for all stores. The differences in the

amounts for stores in the two groups of cities, treated as a total, are also characteristic of the stores differently located but of the same size. For the combined years, the average amount for the smallest stores located in the small cities is \$5.73. The corresponding amount for the stores in the large cities is \$8.13. For the stores with annual sales of \$40,000 to \$80,000 and located in the small cities, it is \$6.30; for those of the same size but located in the large cities, it is \$7.63.

TABLE 129

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 154 STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales								
					Amount	Per Cent.						Actual	
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	154	\$20,892,764	\$1,457,504	\$6.98							100.0	
	Under \$40	14	428,714	19,303	4.50							64.5	
	\$40 to \$80	57	3,222,468	177,277	5.50							78.8	
	\$80 to \$180	58	6,866,815	492,942	7.18							102.9	
	\$180 & over	25	10,374,767	767,982	7.40							106.0	
Under 40	Total (Average)	115	10,005,585	640,451	6.40							91.7	
	Under \$40	14	428,714	19,303	4.50							64.5	
	\$40 to \$80	51	2,836,747	152,696	5.38							77.1	
	\$80 to \$180	44	5,255,410	362,170	6.89							98.7	
	\$180 & over	6	1,484,714	106,282	7.16							102.6	
40 and over	Total (Average)	39	10,887,179	817,053	7.50							107.4	
	Under \$40	-	-	-	-							-	
	\$40 to \$80	6	385,721	24,581	6.37							91.3	
	\$80 to \$180	14	1,611,405	130,772	8.12							116.3	
	\$180 & over	19	8,890,053	661,700	7.44							106.6	

Average \$6.98

TABLE 130

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER
\$100 OF TOTAL NET SALES, FOR 154 STORES CLASSIFIED
BY SIZE OF CITY AND STORE, 1918

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales									
					Amount	Per Cent.								Actual
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	154	\$14,714,615	\$1,084,125	\$7.37									100.0
	Under \$40	42	1,256,795	71,393	5.68									77.1
	\$40 to \$80	63	3,662,794	240,074	6.55									88.9
	\$80 to \$180	35	4,090,203	291,057	7.12									96.6
	\$180 & over	14	5,704,723	481,601	8.44									114.5
Under 40	Total (Average)	115	7,136,283	486,176	6.81									92.4
	Under \$40	41	1,221,199	69,353	5.68									77.1
	\$40 to \$80	49	2,776,272	174,278	6.28									85.2
	\$80 to \$180	22	2,504,412	182,752	7.30									99.1
	\$180 & over	3	634,400	59,793	9.43									126.0
40 and over	Total (Average)	39	7,578,232	597,949	7.89									107.1
	Under \$40	1	35,596	2,040	5.73									77.7
	\$40 to \$80	14	886,522	65,796	7.42									100.7
	\$80 to \$180	13	1,585,791	108,305	6.83									92.7
	\$180 & over	11	5,070,323	421,809	8.32									112.9
Average \$7.37														

As the stores increase in size the differences between the amounts for the stores in the two groups of cities decrease until for the last group they are identical.

In 1919, as shown in Table 129, the stores in the small cities paid \$6.40 in wages and salaries for every \$100 of total net sales. Those in the large cities paid for the same purpose \$7.50. Those in the small cities having sales of \$40,000 to \$80,000 paid \$5.38, and those in the large cities, \$6.37. Generally speaking, in each group of cities

the amounts increase as the stores increase in size, the differences for the stores in the two city-groups in this year, as in the combined years, becoming smaller as the stores increase in size. It is unnecessary to call attention to similar tendencies for this group of stores in 1918 and 1914. The general tendencies are the same although the amounts are somewhat different. Both may be observed by consulting the tables in question.

Other statements of the amounts of wages and salaries attributable to

selling in stores classified by size and by location are found in Tables 132 to 135, inclusive. In these, the basis of comparison is the relation between wages and salaries and selling expense.

For all the stores in the combined years, \$66.69 out of every \$100 of selling expense was paid in the form of compensation to those engaged in selling goods. That is, almost exactly two thirds of the total selling expense went to wages and salaries. Prac-

tically identical amounts characterize the stores in the individual years, the difference from the amount for the combined years being, for 1919, \$0.11, for 1918, \$0.66, and for 1914, \$1.22. As the stores increase in size, no account being taken of location, there is a rough tendency for the amounts to decrease. This tendency is more marked for the year 1914 than for either of the other years, but, in general, may be said to characterize them all.

TABLE 131

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 154 STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1914

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales							
					Amount	Per Cent.						Actual
						Graphic						
					0	20	40	60	80	100	120	
Total (Average)	Total (Average)	154	\$9,228,220	\$693,552	7.52							100.0
	Under \$40	73	1,905,044	121,423	6.37							84.7
	\$40 to \$80	52	2,889,745	219,008	7.58							100.8
	\$80 to \$180	24	2,738,621	209,698	7.66							101.9
	\$180 & over	5	1,694,810	143,423	8.46							112.5
Under 40	Total (Average)	115	4,777,138	339,596	7.11							94.5
	Under \$40	66	1,667,425	101,264	6.07							80.7
	\$40 to \$80	38	2,037,513	154,943	7.60							101.1
	\$80 to \$180	11	1,072,200	83,389	7.78							103.5
	\$180 & over	-	-	-	-							-
40 and over	Total (Average)	39	4,451,062	353,956	7.95							105.7
	Under \$40	7	237,619	20,159	8.48							112.8
	\$40 to \$80	14	852,232	64,065	7.52							100.0
	\$80 to \$180	13	1,666,421	126,309	7.58							100.8
	\$180 & over	5	1,694,810	143,423	8.46							112.5
Average 7.52												

The location of the stores, however, seems to influence the amounts of wages and salaries when measured in terms both of total net sales and of total selling expense. It will be remembered from a discussion above, pages 49 to 52, that the average amount of selling expense per \$100 of total expense, for the stores taken as a whole in the small cities, is slightly less than for the stores treated as a whole in the large cities,

although the amounts for stores of the same size are higher for the stores in the small cities. As is shown by Tables 132 to 135, inclusive, the average amounts of wages and salaries per \$100 of selling expense, for stores in the combined and in the individual years, are larger for the stores in the small than for those in the large cities. This is true not only for the group treated as a total, but also, with minor exceptions, when stores of the same

TABLE 132

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919, 1918, AND 1914, COMBINED

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Store-years	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	462	\$4,851,112	\$3,235,181	\$66.69								100.0
	Under \$40	129	304,954	212,119	69.56								104.3
	\$40 to \$80	172	913,357	636,359	69.67								104.5
	\$80 to \$120	117	1,491,801	993,697	66.61								99.9
	\$120 & over	44	2,141,000	1,393,606	65.06								97.6
Under 40	Total (Average)	345	2,061,362	1,466,223	71.13								106.7
	Under \$40	121	276,723	199,920	68.63								102.9
	\$40 to \$80	138	670,140	421,917	71.91								107.8
	\$80 to \$120	77	892,563	628,311	70.39								105.5
	\$120 & over	9	221,936	166,075	74.83								112.2
40 and over	Total (Average)	117	2,789,750	1,768,958	63.41								95.1
	Under \$40	8	28,231	22,199	78.63								117.9
	\$40 to \$80	34	243,217	154,442	63.50								95.2
	\$80 to \$120	40	599,238	365,386	60.98								91.4
	\$120 & over	35	1,919,064	1,226,931	63.93								95.9

Average \$66.69













size, but with different location, are compared. It may be worth-while to point out for the combined years the comparative size of these amounts for the stores of the same size, but with different location.

For the 121 store-years for the stores with sales under \$40,000 and located in the small cities, the average amount is \$68.63, while for the 8 stores of the same size located in the large cities it is \$78.63. Relatively,

the two amounts in relation to the average stand 2.9 and 17.9 per cent. higher, and relative to each other they stand in the relation of 100 to 114.6. For the remaining groups of stores in the two city-groups the average amounts for the stores in the small cities exceed those for the stores in the large cities. The percentages by which the averages for the stores in the small cities exceed the average for all of the stores, treated as a total,

TABLE 133

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE, FOR 154 STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	154	\$2,182,027	\$1,457,504	\$65.80								100.0
	Under \$40	14	29,018	19,303	66.52								99.6
	\$40 to \$80	57	246,207	177,277	72.00								107.8
	\$80 to \$180	58	719,436	492,942	68.52								102.6
	\$180 & over	25	1,187,366	767,982	64.68								96.8
Under 40	Total (Average)	115	\$98,863	640,451	71.41								106.9
	Under \$40	14	29,018	19,303	66.52								99.6
	\$40 to \$80	51	211,678	152,696	72.14								108.0
	\$80 to \$180	44	509,410	362,170	71.10								106.4
	\$180 & over	6	146,757	106,282	72.42								108.4
40 and over	Total (Average)	39	1,285,164	817,053	63.58								95.2
	Under \$40	-	-	-	-								-
	\$40 to \$80	6	34,529	24,581	71.19								106.6
	\$80 to \$180	14	210,026	130,772	62.26								93.2
	\$180 & over	19	1,040,609	661,700	63.59								95.2

Average \$65.80

TABLE 134

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES
PER \$100 OF SELLING EXPENSE, FOR 154 STORES CLASSIFIED
BY SIZE OF CITY AND STORE, 1918

Size of City, (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense													
					Amount	Per Cent.												
						Graphic												Actual
						0	20	40	60	80	100	120	140	160				
Total (Average)	Total (Average)	154	\$1,609,671	\$1,084,125	\$67.35													100.0
	Under \$40	42	101,621	71,393	70.25													104.3
	\$40 to \$80	63	345,293	240,074	69.53													103.2
	\$80 to \$180	35	445,138	291,057	65.39													97.1
	\$180 & over	14	717,619	481,601	67.11													99.6
Under 40	Total (Average)	115	680,787	486,176	71.41													106.0
	Under \$40	41	99,513	69,353	69.69													103.5
	\$40 to \$80	49	244,788	174,278	71.20													105.7
	\$80 to \$180	22	261,307	182,752	69.94													103.8
	\$180 & over	3	75,179	59,793	79.53													118.1
40 and over	Total (Average)	39	928,884	597,949	64.37													95.6
	Under \$40	1	2,108	2,040	96.77													143.7
	\$40 to \$80	14	100,505	65,796	65.47													97.2
	\$80 to \$180	13	183,831	108,305	58.92													87.5
	\$180 & over	11	642,440	421,808	65.66													97.5

Average \$67.35

being, respectively, for the different size-groups, 7.8, 5.5, and 12.2. The corresponding percentages by which the averages for the stores in the large cities are less than the average for all of the stores are 4.8, 8.6, and 4.1.

Results similar to those just mentioned may be secured by comparing, for each of the various years, stores of similar size but with different location. This the reader may do by consulting Tables 133 to 135, inclusive.

From Tables 128 to 135, inclusive, it may be concluded as follows: First, the amounts of wages and salaries per \$100 of total net sales increase as the stores increase in size, this being true for the stores treated as a whole and with minor exceptions when treated according to location. Second, the amounts of wages and salaries per \$100 of total net sales are generally lower for stores in the small than for stores in the large cities, both when treated as a total and when compared

TABLE 135

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES
PER \$100 OF SELLING EXPENSE, FOR 154 STORES CLASSIFIED
BY SIZE OF CITY AND STORE, 1914

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	154	\$1,059,414	\$693,552	\$65.47								100.0
	Under \$40	73	174,315	121,423	69.66								106.4
	\$40 to \$80	52	321,857	219,008	68.05								103.9
	\$80 to \$180	24	327,227	209,698	64.08								97.9
	\$180 & over	5	236,015	143,423	60.77								92.8
Under 40	Total (Average)	115	483,712	339,596	70.21								107.2
	Under \$40	66	148,192	101,264	68.33								104.4
	\$40 to \$80	38	213,674	154,943	72.51								110.8
	\$80 to \$180	11	121,846	83,389	68.44								104.5
	\$180 & over	-	-	-	-								-
40 and over	Total (Average)	39	575,702	353,956	61.48								93.9
	Under \$40	7	26,123	20,159	77.17								117.9
	\$40 to \$80	14	108,183	64,065	59.22								90.5
	\$80 to \$180	13	205,381	126,309	61.50								93.9
	\$180 & over	5	236,015	143,423	60.77								92.8

Average \$55.47

by size. This condition is generally true for the combined and for the individual years. Third, the amounts of wages and salaries per \$100 of selling expense for stores in large cities decrease as the stores increase in size. For those in small cities, the reverse condition obtains. Fourth,

the amounts of wages and salaries per \$100 of selling expense for the stores in the small are higher than for the stores in the large cities, both when treated as a whole and when compared by size. This condition is generally true for the combined and for the individual years.

E.—Summary.

- (1). Wages and salaries in terms of sales decreased between 1914 and 1918, and 1918 and 1919.
- (2). Approximately two thirds of selling expense is chargeable to the wages and salaries of the selling force.
- (3). Wages and salaries in terms of total selling expense increased between 1914 and 1918, and decreased between 1918 and 1919.
- (4). The amounts of wages and salaries per \$100 of total net sales increase with the size of store for all stores, as well as for those located in small and large cities.
- (5). The amounts of wages and salaries per \$100 of selling expense for all stores and for those in large cities decrease as the sales increase. The amounts increase with size of store in small cities.
- (6). For stores of the same size, wages and salaries in terms of sales are higher in large than in small cities.
- (7). The proportion of selling expense chargeable to wages and salaries is higher in small than in large cities for stores of a given size.

2.—YEARLY AMOUNTS OF WAGES AND SALARIES IN RELATION TO THE AMOUNTS OF STOCK CARRIED, FOR STORES CLASSIFIED BY YEARS AND BY SIZE.

The discussion of wages and salaries for stores classified by the amounts of inventory carried per \$100 of total net sales follows closely the corresponding section, pages 53 to 85, which relates to yearly amounts of total selling expense for stores classified in the same manner. The amounts are measured in terms of sales, of selling expense, and of other appropriate units. The methods which are used to secure the different ratios are explained on page 4, and do not need to be repeated here.

A.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, 1919, 1918, and 1914.

The decreases from year to year in the amounts of wages and salaries per \$100 of total net sales for 154 stores are shown in actual amounts and in graphic form in Table 119. Similar decreases also hold from year to year for the 149 stores which are discussed in this section. In Table 136 the amounts are shown to be \$7.60 in 1914, \$7.42 in 1918, and \$7.04 in 1919. Moreover, when the stores are classified in each year by the amounts of inventory per \$100 of total net sales, wages and salaries decrease generally from year to year for stores having inventories of the same size. There are some exceptions

to this rule, primarily due to the small number of stores included, but they cannot always be explained by this fact. It should be kept in mind that inventories in terms of sales were relatively lower in 1919 than in 1914 or in 1918. Consequently, the amounts of wages and salaries per \$100 of total net sales for stores in the different years may be more accurately compared by considering stores with inventories of the same size in the different years than by grouping the stores as totals. When the totals are compared, differences may be ascribed to changes in wages and salaries paid, to the increases or decreases in the sales, or to the changes in the inventories in relation to sales.

For each year the amounts of wages and salaries per \$100 of total net sales decrease as the inventories per \$100 of total net sales increase. The amount for stores having inventories of less than \$20 per \$100 of total net sales is exceptionally low. In the discussion of selling expense per \$100 of total net sales for the stores similarly classified, it will be recalled that the same condition held. It has been pointed out that the decreases in the amounts, stated in terms of sales, can be explained, in part at least, by the fact that the large stores have relatively high selling expenses per \$100 of total net sales and relatively low inventories, similarly measured. The same observation applies to the detail of Table 136. Inasmuch as wages and salaries constitute on the average 66 per cent.

of total selling expense, it is to be expected that the nature of the change in the amounts of selling expense will be reflected in the amounts of wages and salaries.

The part of Table 136 which shows the amounts of wages and salaries per \$100 of total net sales for each amount sold per \$1 of inventory is more significant.* By the use of this unit the varying sizes of the stores are eliminated and the amounts of wages and salaries per \$100 of total net sales for stores of different-sized inventories made comparable. It will be seen by consulting the table that the amounts expressed in this more detailed form increase in each of the years as the inventories in relation to sales increase. How generally this condition obtains, and the regularity with which the increases occur, are shown graphically and in amounts in Table 136. It is unnecessary in view of the discussion on page 55 to comment further upon this tendency. Attention, however, should again be called to the fact that wages and salaries constitute approximately 66 per cent. of the total selling expense and that the influences which determine the amounts of wages and salaries are likely also to determine the amounts of selling expense.

In order to supplement Table 136, Table 137 has been prepared. This table shows for each of the years the average amounts of inventory per \$100 of total net sales for stores classified by amounts of wages and

* The method by which this unit is computed is explained on page 4, item 17.

salaries paid per \$100 of total net sales. The average inventory per \$100 of total net sales decreased between 1914 and 1918, and between 1918 and 1919, the reduction being particularly noticeable between 1918 and 1919. Within each year, moreover, the inventories decrease as the amounts of wages and salaries per \$100 of total net sales increase. That is, there is an inverse relationship between inventories and wages and salaries when both are expressed in sales. A similar condition was shown in Table 20 for the stores when classi-

fied in each of the years according to the amounts of selling expense per \$100 of total net sales.

In Table 138 the same 149 stores are classified in each of the years according to the amounts of inventory per \$100 of total net sales, and for each group of stores the average amount of wages and salaries per \$100 of selling expense has been computed. For the combined years, \$66.88 out of every \$100 of selling expense was paid to salesmen in wages and salaries. In 1914 the amount was \$65.73, in 1918, \$67.51, and in 1919,

TABLE 136

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER AMOUNT SOLD PER \$1 OF INVENTORY, FOR 149 IDENTICAL STORES CLASSIFIED BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Inventory per \$100 of Total Net Sales	Number of Store-years	Wages and Salaries per \$100 of Total Net Sales						Wages and Salaries per \$100 of Total Net Sales per Amount Sold per \$1 of Inventory													
			Amount	Per Cent.						Amount	Per Cent.											
				Graphic							Graphic											
				0	20	40	60	80	100		120	0	20	40	60	80	100	120	140	160	180	
Total (Average)	Total (Average)	447	\$7.28							100.0	\$2.74							100.0				
	Under \$20	14	5.24							72.0	0.92							55.6				
	\$20 to \$40	168	7.81							107.5	2.54							85.4				
	\$40 to \$60	177	6.70							92.0	3.35							122.3				
	\$60 & over	88	6.45							88.6	4.52							165.0				
1919	Total (Average)	149	7.04							96.7	2.51							84.3				
	Under \$20	7	5.37							75.8	0.94							54.5				
	\$20 to \$40	85	7.40							101.6	2.22							81.0				
	\$40 to \$60	51	6.56							87.4	3.18							116.1				
	\$60 & over	8	5.14							70.6	3.60							131.4				
1918	Total (Average)	149	7.42							101.9	5.00							109.5				
	Under \$20	3	3.90							55.6	0.68							24.8				
	\$20 to \$40	46	8.67							117.7	2.67							95.8				
	\$40 to \$60	60	6.27							86.1	3.14							114.6				
	\$60 & over	40	6.45							88.6	4.52							165.0				
1914	Total (Average)	149	7.60							104.4	3.50							120.4				
	Under \$20	4	6.95							95.5	1.22							44.5				
	\$20 to \$40	39	7.89							108.4	2.37							86.3				
	\$40 to \$60	66	7.65							105.1	3.63							159.8				
	\$60 & over	40	6.86							94.2	4.00							175.2				
			Average \$7.28																		Average \$2.74	

















\$66.98. That is, the amounts increased between 1914 and 1918 and decreased between 1918 and 1919. A similar condition was observed in Table 121 for 154 stores for the same years.

When the 149 stores are classified for each of the years by the amounts of inventory per \$100 of total net sales, as in Table 138, there is a general tendency, in the combined years, for the amounts of wages and salaries per \$100 of selling expense to in-

crease as the inventories per \$100 of total net sales increase. Those stores which had inventories less than \$20 per \$100 of total net sales had wages and salaries per \$100 of selling expense of \$62.42, while those which had inventories of \$60 and over per \$100 of total net sales had wages and salaries of \$68.84 out of every \$100 of selling expense. When each of the years is considered separately, however, the tendency for the amounts to increase or to decrease with the in-

TABLE 137





















TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 IDENTICAL STORES CLASSIFIED BY AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Wages & Salaries per \$100 of Total Net Sales	Number of Store-years	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales									
					Amount	Per Cent.								
						Graphic							Actual	
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	447	\$43,532,972	\$16,369,406	\$37.54								100.0	
	Under \$4	95	5,689,635	2,268,589	39.87								106.2	
	\$4 to \$8	227	24,298,967	9,067,776	37.31								99.4	
	\$8 & over	125	13,611,350	5,033,041	36.98								98.5	
1919	Total (Average)	149	20,303,641	6,667,056	32.84								87.5	
	Under \$4	42	3,504,985	1,237,010	35.29								94.0	
	\$4 to \$8	71	11,248,575	3,679,392	32.71								87.1	
	\$8 & over	36	5,550,081	1,750,654	31.54								84.0	
1918	Total (Average)	149	14,322,667	5,804,340	40.53								108.0	
	Under \$4	34	1,594,006	736,259	46.19								123.0	
	\$4 to \$8	70	8,149,108	3,311,650	40.64								108.3	
	\$8 & over	45	4,379,553	1,756,431	38.35								102.2	
1914	Total (Average)	149	8,973,664	3,895,010	43.44								115.7	
	Under \$4	19	590,644	295,320	50.00								133.2	
	\$4 to \$8	66	4,901,304	2,076,734	42.37								112.9	
	\$8 & over	44	3,481,716	1,525,956	43.83								116.8	

Average \$37.54

TABLE 138

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNTS OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE, FOR 149 IDENTICAL STORES CLASSIFIED BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Inventory per \$100 of Total Net Sales	Number of Store-years	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
					0	20	40	60	80	100	120		
Total (Average)	Total (Average)	447	\$4,745,829	\$3,174,021	\$66.83								100.0
	Under \$20	14	172,900	107,920	62.42								93.3
	\$20 to \$40	168	3,088,085	2,066,831	66.93								100.1
	\$40 to \$60	177	1,128,967	754,274	66.81								99.9
	\$60 & over	83	355,877	244,996	68.84								102.9
1919	Total (Average)	149	2,135,072	1,430,061	66.93								100.1
	Under \$20	7	105,711	64,927	61.42								91.8
	\$20 to \$40	83	1,649,518	1,111,412	67.38								100.7
	\$40 to \$60	51	345,965	230,646	66.67								99.7
	\$60 & over	8	33,878	23,076	68.12								101.9
1918	Total (Average)	149	1,573,249	1,062,031	67.51								100.9
	Under \$20	3	32,117	20,714	64.50								96.4
	\$20 to \$40	46	937,441	644,437	68.74								102.8
	\$40 to \$60	60	427,462	275,422	64.43								96.3
	\$60 & over	40	176,229	121,458	68.92								103.1
1914	Total (Average)	149	1,037,508	681,929	66.73								98.3
	Under \$20	4	35,072	22,279	63.52								95.0
	\$20 to \$40	39	501,126	310,982	62.06								92.8
	\$40 to \$60	66	355,540	248,206	69.81								104.4
	\$60 & over	40	145,770	100,462	68.92								103.1

Average \$66.83























crease in inventories in relation to sales is uncertain. It is of interest to observe, however, that in the years under consideration, the smallest amount of wages and salaries per \$100 of selling expense was less than the average by 8.2 per cent., and the

largest amount greater than the average by 4.4 per cent. That is, a remarkable degree of uniformity characterizes the amounts for all groups of stores in the different years.

Similar uniformity in the amounts of wages and salaries per \$100 of

TABLE 139

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 149 IDENTICAL STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales							
					Amount	Per Cent.						Actual
						Graphic						
						0	20	40	60	80	100	
Total (Average)	Total (Average)	447	\$43,599,972	\$3,174,021	\$7.28							100.0
	Under \$20	14	2,059,425	107,920	5.24							72.0
	\$20 to \$40	168	26,478,436	2,066,831	7.81							107.3
	\$40 to \$60	177	11,263,282	754,274	6.70							92.0
	\$60 & over	83	3,799,829	244,996	6.45							88.6
Under \$40	Total (Average)	127	3,532,911	208,053	5.89							80.9
	Under \$20	1	28,933	720	2.49							34.2
	\$20 to \$40	18	560,460	33,972	6.06							83.2
	\$40 to \$60	52	1,412,525	75,000	5.31							72.9
	\$60 & over	56	1,530,993	96,361	6.43							88.3
\$40 to \$80	Total (Average)	165	9,360,348	616,677	6.59							90.5
	Under \$20	6	402,009	20,502	5.10							70.1
	\$20 to \$40	52	3,083,049	187,969	6.10							83.8
	\$40 to \$60	82	4,458,869	309,439	6.94							95.3
	\$60 & over	25	1,416,421	96,767	6.97							95.7
\$80 to \$180	Total (Average)	112	13,121,494	963,535	7.34							100.8
	Under \$20	5	555,107	38,199	6.88							94.5
	\$20 to \$40	60	7,076,841	563,284	7.96							109.3
	\$40 to \$60	40	4,638,131	314,184	6.77							93.0
	\$60 & over	7	851,415	47,868	5.62							77.2
\$180 & over	Total (Average)	43	17,585,219	1,385,756	7.88							108.2
	Under \$20	2	1,073,376	48,499	4.52							62.1
	\$20 to \$40	38	15,758,086	1,281,606	8.13							111.7
	\$40 to \$60	3	753,757	55,651	7.38							101.4
	\$60 & over	-	-	-	-							-

Average \$7.28

total expense was found to characterize the stores treated in Volume II* of the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*. "Wages and salaries," as there used, included all forms of compensation paid, and "total expense" included all operating expenses. In Table 138, "wages and salaries" includes only the compensation paid to those who are involved in selling, and "selling expense" is used in the sense defined on page 34. What is being stressed now is the uniformity in the amounts of wages and salaries when measured in terms of two separate standards.

From Tables 136 to 138, inclusive, it may be concluded: First, that the amounts of wages and salaries per \$100 of total net sales in the years 1919, 1918, and 1914, combined and individually, for stores having inventories, similarly measured, of \$20 and over, decrease as the amounts of inventory per \$100 of total net sales increase. Second, the amounts of wages and salaries per \$100 of total net sales decreased from 1914 to 1918, and 1918 to 1919. Third, the amounts of inventory per \$100 of total net sales, in the individual and in the combined years, decrease as the amounts of wages and salaries (in terms of sales) increase. Fourth, the amounts of inventory per \$100 of total net sales decreased between 1914 and 1918, and 1918 and 1919. Fifth, the amounts of wages and salaries per \$100 of selling expense increased be-

tween 1914 and 1918, and decreased between 1918 and 1919. Sixth, for the combined years the amounts of wages and salaries per \$100 of selling expense roughly tend to increase as the amounts of inventories increase. For the individual years the tendencies to decrease or to increase are uncertain.

B.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size, 1919, 1918, and 1914.

In Tables 139 to 142, inclusive, the 149 stores which are being considered are classified for the combined and for the individual years by size and by the amounts of inventory in relation to their sales. For each group the average amount of wages and salaries paid by stores to their selling force has been computed in terms of sales.

In 1919 it cost in wages and salaries \$7.04 to sell \$100 worth of goods. For the stores with sales under \$40,000, the cost was \$4.50; for those with sales of \$40,000 to \$80,000 it was \$5.54; for those with sales of \$80,000 to \$180,000 it was \$7.25; and for those with sales of \$180,000 and over it was \$7.47. That is, the amounts increase as the stores increase in size. When the stores are classified, as in Table 140, by the amounts of inventory per \$100 of total net sales, increases, with few exceptions, are found to characterize stores of increasing size, but with similar inventories in relation to sales. In some of

* Pages 157 to 164.

TABLE 140

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of inventory per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales							
					Amount	Per Cent.						Actual
						Graphic						
						0	20	40	60	80	100	
Total (Average)	Total (Average)	149	\$20,303,641	\$1,430,061	\$7.04							100.0
	Under \$20	7	1,208,118	64,927	5.37							76.3
	\$20 to \$40	83	15,018,367	1,111,412	7.40							105.1
	\$40 to \$60	51	3,628,188	230,646	6.36							90.3
	\$60 & over	8	448,968	23,076	5.14							73.0
Under \$40	Total (Average)	14	428,714	19,303	4.50							63.9
	Under \$20	-	-	-	-							-
	\$20 to \$40	2	68,054	2,640	3.88							55.1
	\$40 to \$60	8	244,012	10,750	4.41							62.6
	\$60 & over	4	116,648	5,913	5.07							72.0
\$40 to \$60	Total (Average)	55	3,082,182	170,682	5.54							78.7
	Under \$20	2	150,276	5,875	3.91							55.5
	\$20 to \$40	22	1,287,723	65,760	5.11							72.6
	\$40 to \$60	28	1,472,999	91,847	6.24							88.6
	\$60 & over	3	171,154	7,200	4.21							59.8
\$60 to \$180	Total (Average)	56	6,607,089	479,344	7.25							103.0
	Under \$20	4	384,466	26,569	6.91							98.2
	\$20 to \$40	37	4,382,158	326,696	7.46							106.0
	\$40 to \$60	14	1,679,299	116,116	6.91							98.2
	\$60 & over	1	161,166	9,963	6.18							87.8
\$180 & over	Total (Average)	24	10,185,686	760,732	7.47							106.1
	Under \$20	1	673,376	32,483	4.82							68.5
	\$20 to \$40	22	9,280,432	716,316	7.72							109.7
	\$40 to \$60	1	231,878	11,933	5.15							73.2
	\$60 & over	-	-	-	-							-

Average \$7.04

the groups the number of stores is so small, when they are classified in this form, as to make direction of change uncertain. The irregularities in the amounts, however, are for the most part removed when the three years

are combined as in Table 139. Moreover, the tendency for the amounts to increase is more regular in 1919 when a larger group of stores is used as in Table 144.

The amounts of wages and salaries

TABLE 141



















TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
0 20 40 60 80 100 120 140																
Total (Average)	Total (Average)	149	\$14,322,667	\$1,062,031	\$7.42											100.0
	Under \$20	3	530,649	20,714	3.90											52.6
	\$20 to \$40	46	7,517,748	644,437	8.57											115.5
	\$40 to \$60	60	4,389,893	275,422	6.28											84.6
	\$60 & over	40	1,884,377	121,458	6.45											66.9
Under \$40	Total (Average)	42	1,256,795	71,393	5.68											76.5
	Under \$20	-	-	-	-											-
	\$20 to \$40	6	209,528	9,878	4.71											63.5
	\$40 to \$60	13	381,473	17,855	4.68											63.1
	\$60 & over	23	665,594	43,660	6.56											88.4
\$40 to \$80	Total (Average)	60	3,501,019	231,207	6.60											89.1
	Under \$20	2	130,649	4,698	3.60											48.5
	\$20 to \$40	15	901,852	67,991	7.54											101.6
	\$40 to \$60	29	1,632,061	98,140	6.01											81.0
	\$60 & over	14	836,457	60,378	7.22											97.3
\$80 to \$180	Total (Average)	33	3,860,130	277,830	7.20											97.0
	Under \$20	-	-	-	-											-
	\$20 to \$40	14	1,623,524	144,701	8.91											120.1
	\$40 to \$60	16	1,854,280	115,709	6.24											84.1
	\$60 & over	3	382,326	17,420	4.56											61.5
\$180 & over	Total (Average)	14	5,704,723	481,601	8.44											113.7
	Under \$20	1	400,000	16,018	4.00											53.9
	\$20 to \$40	11	4,782,844	421,867	8.82											118.9
	\$40 to \$60	2	621,879	43,718	8.38											112.9
	\$60 & over	-	-	-	-											-

Average \$7.42

TABLE 142

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales							
					Amount	Per Cent.						Actual
						Graphic						
						0	20	40	60	80	100	
Total (Average)	Total (Average)	149	\$8,973,664	\$681,929	\$7.60							100.0
	Under \$20	4	320,658	22,279	6.95							91.4
	\$20 to \$40	39	3,942,321	310,982	7.89							103.8
	\$40 to \$60	66	3,245,201	248,206	7.65							100.7
	\$60 & over	40	1,465,484	100,462	6.86							90.3
Under \$40	Total (Average)	71	1,847,402	117,357	6.35							83.6
	Under \$20	1	28,933	720	2.49							32.8
	\$20 to \$40	10	282,878	21,454	7.58							99.7
	\$40 to \$60	31	786,840	46,395	5.90							77.6
	\$60 & over	29	748,751	48,788	6.52							85.8
\$40 to \$80	Total (Average)	50	2,777,177	214,788	7.73							101.7
	Under \$20	2	121,084	9,929	8.20							107.9
	\$20 to \$40	15	893,474	54,218	6.07							79.9
	\$40 to \$60	25	1,353,809	119,452	8.82							116.1
	\$60 & over	8	408,810	31,189	7.63							100.4
\$80 to \$180	Total (Average)	23	2,654,275	206,361	7.77							102.2
	Under \$20	1	170,641	11,630	6.82							89.7
	\$20 to \$40	9	1,071,159	91,887	8.58							112.9
	\$40 to \$60	10	1,104,552	82,359	7.46							98.2
	\$60 & over	3	307,923	20,485	6.65							87.5
\$180 & over	Total (Average)	5	1,694,810	143,423	8.46							111.3
	Under \$20	-	-	-	-							-
	\$20 to \$40	5	1,694,810	143,423	8.46							111.3
	\$40 to \$60	-	-	-	-							-
	\$60 & over	-	-	-	-							-

Average \$7.60

per \$100 of total net sales, however, in which we are most interested, are those for stores of essentially the same size, but with different amounts of inventory in relation to sales. These amounts are found in Tables 139 to

142, inclusive. Within each group, when the stores are classified by size and by amounts of inventory in relation to sales, there seems to be no general tendency for the amounts of wages and salaries per \$100 of total

TABLE 143

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER AMOUNT SOLD PER \$1 OF INVENTORY, FOR STORES CLASSIFIED BY SIZE AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Amount of Wages and Salaries per \$100 of Total Net Sales per Amount Sold per \$1 of Inventory															
		Average				1919				1918				1914			
		Actual	Graphic			Actual	Graphic			Actual	Graphic			Actual	Graphic		
		\$0	\$2	\$4	\$6	\$0	\$2	\$4	\$6	\$0	\$2	\$4	\$6	\$0	\$2	\$4	\$6
Total (Average)	Total (Average)	\$2.74				\$2.31				\$3.00				\$3.30			
	Under \$20	0.92				0.94				0.68				1.22			
	\$20 to \$40	2.34				2.22				2.57				2.37			
	\$40 to \$60	3.95				3.18				3.14				3.83			
	\$60 & over	4.52				3.60				4.52				4.80			
Under \$40	Total (Average)	3.31				2.28				3.32				3.57			
	Under \$20	0.44				-				-				0.44			
	\$20 to \$40	1.82				1.16				1.41				2.27			
	\$40 to \$60	2.66				2.21				2.34				2.95			
	\$60 & over	4.50				3.88				4.59				4.56			
\$40 to \$80	Total (Average)	3.00				2.30				3.27				3.47			
	Under \$20	0.89				0.68				0.63				1.44			
	\$20 to \$40	1.83				1.53				2.26				1.82			
	\$40 to \$60	3.47				3.12				3.01				4.41			
	\$60 & over	4.08				2.95				5.05				5.34			
\$80 to \$180	Total (Average)	2.90				2.60				3.24				3.17			
	Under \$20	1.20				1.21				-				1.19			
	\$20 to \$40	2.32				2.24				2.67				2.57			
	\$40 to \$60	3.39				3.46				3.12				3.73			
	\$60 & over	3.93				4.33				3.19				4.66			
\$180 & over	Total (Average)	2.21				2.06				2.38				2.64			
	Under \$20	0.79				0.84				0.70				-			
	\$20 to \$40	2.44				2.32				2.65				2.64			
	\$40 to \$60	3.69				2.58				4.19				-			
	\$60 & over	-				-				-				-			
		Average \$2.74				Average \$2.31				Average \$3.00				Average \$3.30			

net sales to increase or to decrease as the amounts of inventory per \$100 of total net sales increase. In some groups, if the details for the combined years are taken as an illustration, the amounts decrease, while in others they increase. In view of this fact, it would be unsafe to generalize for all of the store-groups. The amounts, however, are of sufficient interest to warrant publication.

Table 143 shows what it cost in wages and salaries per \$100 of total

net sales to sell the actual amounts sold per \$1 of inventory * in 149 stores classified by size and amount of inventory in terms of sales. By using this more detailed unit, the uncertain direction of change for wages and salaries is eliminated. For the stores as grouped, the amounts become larger as the size of the inventory in relation to sales increases. Such a condition for selling expense was observed

* The method by which this unit is computed is explained on page 4, item 17.

TABLE 144
AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER STOCK TURN-OVER, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Wages and Salaries per \$100 of Total Net Sales										Wages and Salaries per \$100 of Total Net Sales per Stock Turnover															
			Amount	Per Cent.										Amount	Per Cent.													
				Graphic											Graphic													
				0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120	140	160	180	Actual						
Total (Average)	Total (Average)	282	\$6.67											100.0	\$3.03											100.0		
	Under \$20	17	5.64											84.6	1.28											42.2		
	\$20 to \$40	153	7.05											105.7	2.94											97.0		
	\$40 & over	112	6.07											91.0	4.34											143.2		
Under \$40	Total (Average)	33	4.26											63.9	2.84											93.7		
	Under \$20	-	-											-	-											-		
	\$20 to \$40	10	3.46											51.9	1.65											54.5		
	\$40 & over	23	4.64											69.6	3.57											117.8		
\$40 to \$80	Total (Average)	106	5.36											80.4	2.98											96.3		
	Under \$20	3	3.56											53.4	0.85											26.1		
	\$20 to \$40	45	4.93											75.9	2.24											75.9		
	\$40 & over	58	5.64											67.6	3.69											128.4		
\$80 to \$180	Total (Average)	98	6.65											102.7	3.61											119.1		
	Under \$20	5	6.74											101.0	1.60											52.6		
	\$20 to \$40	63	6.99											104.8	3.18											105.0		
	\$40 & over	30	6.59											98.6	4.39											144.9		
\$180 & over	Total (Average)	45	7.15											107.2	2.55											84.2		
	Under \$20	9	5.63											84.4	1.25											42.3		
	\$20 to \$40	35	7.58											113.6	2.92											96.4		
	\$40 & over	1	5.15											77.2	4.29											141.6		
Average \$6.67																			Average \$3.03									





















in the discussion of Table 27 and it would naturally follow for wages and salaries, similarly measured, in view of the proportion which they constitute of total selling expense. Table 143 should be considered in connection with Tables 139 to 142, inclusive.

In Table 144, the records of 282 stores are studied for 1919, when the

stores are classified by size and by the amounts of inventory per \$100 of total net sales. In view of the foregoing discussion, it is unnecessary to consider further the amounts of wages and salaries per \$100 of total net sales for the stores as classified. One section of this table, however, is of interest. The right-hand columns

TABLE 145






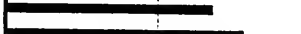
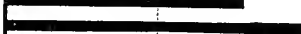











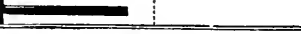

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 IDENTICAL STORES CLASSIFIED BY SIZE AND BY AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Wages & Salaries per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales										
					Amount	Per Cent.								Actual	
						Graphic									
						0	20	40	60	80	100	120	140	160	
Total (Average)	Total (Average)	447	\$43,599,972	\$16,369,406	\$37.54										100.0
	Under \$4	95	5,669,635	2,260,539	39.87										106.2
	\$4 to \$8	227	24,298,967	9,067,776	37.32										99.4
	\$8 & over	125	13,611,350	5,033,041	36.98										98.5
Under \$40	Total (Average)	127	3,532,911	1,989,518	56.31										150.0
	Under \$4	35	954,233	502,665	52.68										140.3
	\$4 to \$8	66	1,804,605	1,024,030	56.74										151.1
	\$8 & over	26	774,073	462,823	59.79										159.3
\$40 to \$80	Total (Average)	165	9,360,348	4,254,795	45.46										121.1
	Under \$4	42	2,318,545	947,650	40.88										108.9
	\$4 to \$8	75	4,303,648	2,021,129	46.96										125.1
	\$8 & over	48	2,738,155	1,285,816	46.96										125.1
\$80 to \$180	Total (Average)	112	13,121,494	5,193,131	39.58										105.4
	Under \$4	16	1,637,290	631,181	38.55										102.7
	\$4 to \$8	56	6,151,092	2,622,806	42.64										113.8
	\$8 & over	40	5,333,112	1,939,144	36.36										96.9
\$180 & over	Total (Average)	43	17,585,219	4,931,962	28.05										74.7
	Under \$4	2	779,567	186,893	23.97										63.9
	\$4 to \$8	30	12,039,642	3,399,811	28.24										75.2
	\$8 & over	11	4,766,010	1,345,258	28.23										75.2

Average \$37.54

TABLE 146

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Wages & Salaries per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales													
					Amount	Per Cent.												Actual
						Graphic												
						0	20	40	60	80	100	120	140	160	180	200		
Total (Average)	Total (Average)	149	\$20,303,641	\$6,667,056	\$32.84													100.0
	Under \$4	42	3,504,985	1,237,010	35.29													107.5
	\$4 to \$8	71	11,248,575	3,679,392	32.71													99.6
	\$8 & over	36	5,550,081	1,750,654	31.54													96.0
Under \$40	Total (Average)	14	428,714	215,607	50.29													153.1
	Under \$4	5	144,225	64,511	44.73													136.2
	\$4 to \$8	8	248,945	128,272	51.53													156.9
	\$8 & over	1	35,544	22,824	64.21													195.5
\$40 to \$80	Total (Average)	55	3,082,152	1,280,963	41.56													126.6
	Under \$4	22	1,226,685	481,117	39.23													119.5
	\$4 to \$8	23	1,324,685	576,055	43.49													132.4
	\$8 & over	10	530,782	223,781	42.16													128.4
\$80 to \$180	Total (Average)	56	6,607,089	2,366,933	35.82													109.1
	Under \$4	13	1,354,508	504,489	37.25													113.4
	\$4 to \$8	23	2,850,532	1,055,864	37.04													112.8
	\$8 & over	20	2,402,049	806,580	33.58													102.3
\$180 & over	Total (Average)	24	10,185,686	2,903,563	27.52													83.8
	Under \$4	2	779,567	186,893	23.97													73.0
	\$4 to \$8	17	6,824,413	1,919,201	28.12													85.6
	\$8 & over	5	2,581,706	697,469	27.02													82.3
Average \$32.84																		

Average \$32.84

show, for different groups of stores, the amounts of wages and salaries per \$100 of total net sales per stock turnover.* That is, wages and salaries are measured in terms of a unit of sales for a single turn.

For this group of stores, as goods are sold, it cost in wages and salaries \$6.67 to sell \$100 worth of goods,

* The method by which this unit is computed is explained on page 4, item 19.

while it cost in wages and salaries per stock turnover, \$3.03 to sell \$100 worth of goods. The amounts of wages and salaries required to sell \$100 worth of goods increase as stores increase in size, but when they are expressed in terms of sales per turnover, they are essentially constant for the stores with sales under \$80,000, increase for those with sales from \$80,000 to \$180,000 and noticeably decrease for those

with sales of \$180,000 and over. While the expense, due to wages and salaries per \$100 of total net sales in the stores with sales of \$180,000 and over, is 170.2 per cent. of the average for all stores, the amount of wages and salaries per \$100 of total net sales per stock turn is 84.2 per cent. of the average.

For the stores as a whole and when

classified by size, the amounts of wages and salaries per \$100 of total net sales per stock turnover increase rapidly as the amounts of inventory per \$100 of total net sales increase. The nature of the increase may be illustrated by selecting the 106 stores which had sales in 1919 of between \$40,000 and \$80,000. For the three stores which had inventories less than

TABLE 147



















TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Wages & Salaries per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales											
					Amount	Per Cent.										Actual
						0	20	40	60	80	100	120	140	160		
Total (Average)	Total (Average)	149	\$14,322,667	\$5,804,340	\$40.53											100.0
	Under \$4	34	1,594,006	736,259	46.19											114.0
	\$4 to \$8	70	8,149,108	3,311,650	40.64											100.3
	\$8 & over	45	4,579,553	1,756,431	38.35											94.6
Under \$40	Total (Average)	42	1,256,795	734,523	58.44											144.2
	Under \$4	15	420,124	215,918	51.39											126.8
	\$4 to \$8	17	502,214	318,849	63.49											156.6
	\$8 & over	10	334,457	199,756	59.73											147.4
\$40 to \$80	Total (Average)	60	3,501,019	1,729,460	49.40											121.9
	Under \$4	16	891,100	393,649	44.18											109.0
	\$4 to \$8	25	1,418,558	743,552	52.42											129.3
	\$8 & over	19	1,191,361	592,259	49.71											122.6
\$80 to \$180	Total (Average)	33	3,860,130	1,741,562	45.12											111.3
	Under \$4	3	262,762	126,692	44.80											110.5
	\$4 to \$8	19	2,351,967	1,183,993	50.34											124.2
	\$8 & over	11	1,225,381	430,877	35.16											86.6
\$180 & over	Total (Average)	14	5,704,723	1,598,785	28.03											69.2
	Under \$4	-	-	-	-											-
	\$4 to \$8	9	3,876,369	1,065,256	27.48											67.8
	\$8 & over	5	1,828,354	533,539	29.18											72.0

Average \$40.53

TABLE 148

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Wages & Salaries per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales									
					Amount	Per Cent.								Actual
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	149	\$8,973,664	\$3,898,010	\$43.44									100.0
	Under \$4	19	590,644	295,320	50.00									115.1
	\$4 to \$8	86	4,901,304	2,076,754	42.37									97.5
	\$8 & over	44	3,481,716	1,525,956	43.83									100.9
Under \$40	Total (Average)	71	1,847,402	1,039,388	56.26									129.5
	Under \$4	15	309,884	222,236	57.00									131.2
	\$4 to \$8	41	1,053,446	576,909	54.76									126.1
	\$8 & over	15	404,072	240,243	59.46									136.9
\$40 to \$80	Total (Average)	50	2,777,177	1,244,382	44.81									103.2
	Under \$4	4	200,760	73,084	36.40									83.8
	\$4 to \$8	27	1,560,405	701,522	44.96									103.5
	\$8 & over	19	1,016,012	469,776	46.24									106.4
\$80 to \$180	Total (Average)	23	2,654,275	1,084,636	40.86									94.1
	Under \$4	-	-	-	-									-
	\$4 to \$8	14	948,593	382,949	40.37									92.9
	\$8 & over	9	1,705,682	701,687	41.14									94.7
\$180 & over	Total (Average)	5	1,694,810	529,604	31.25									71.9
	Under \$4	-	-	-	-									-
	\$4 to \$8	4	1,338,860	415,354	31.02									71.4
	\$8 & over	1	355,950	114,250	32.10									73.9

Average \$43.44

\$20, it cost in wages and salaries \$3.56 to sell \$100 worth of goods, but per turnover the expense was but \$0.85. For those that had inventories between \$20 and \$40 per \$100 of total net sales, it cost in wages and salaries for each \$100 of total net sales, \$4.93,

but for each unit of sales per stock turnover, \$2.24. Similarly, for the stores which had inventories of \$40 and over, it cost \$5.84 for each \$100 of total net sales, but for \$100 of sales per stock turnover the amount was \$3.89.

TABLE 149

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES
PER \$100 OF SELLING EXPENSE, FOR 149 IDENTICAL STORES CLASSIFIED
BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL
NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Store- years	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense							
					Amount	Per Cent.						Actual
						Graphic						
						0	20	40	60	80	100	
Total (Average)	Total (Average)	447	\$4,745,829	\$3,174,021	\$66.88							100.0
	Under \$20	14	172,900	107,920	62.42							93.3
	\$20 to \$40	168	3,088,085	2,066,831	66.93							100.1
	\$40 to \$60	177	1,128,967	754,274	66.81							99.9
	\$60 & over	88	355,877	244,996	68.84							102.9
Under \$40	Total (Average)	127	298,231	208,053	69.76							104.3
	Under \$20	1	948	720	75.95							113.6
	\$20 to \$40	18	54,036	33,972	62.87							94.0
	\$40 to \$60	52	112,394	75,000	66.79							99.9
	\$60 & over	56	130,353	98,361	75.11							112.3
\$40 to \$80	Total (Average)	165	877,524	616,677	70.27							105.1
	Under \$20	6	29,622	20,502	69.21							103.5
	\$20 to \$40	52	283,795	187,969	66.23							99.0
	\$40 to \$60	82	428,579	309,439	72.20							103.0
	\$60 & over	25	135,528	98,767	72.88							109.0
\$80 to \$180	Total (Average)	112	1,445,029	963,535	66.68							99.7
	Under \$20	5	53,399	38,199	71.54							107.0
	\$20 to \$40	60	802,575	563,204	70.18							104.9
	\$40 to \$60	40	499,659	314,184	62.88							94.0
	\$60 & over	7	69,396	47,868	53.55							80.1
\$180 & over	Total (Average)	43	2,125,045	1,385,756	65.21							97.5
	Under \$20	2	88,931	48,499	54.54							81.5
	\$20 to \$40	38	1,947,679	1,281,606	65.80							98.4
	\$40 to \$60	3	88,435	55,551	62.93							94.1
	\$60 & over	-	-	-	-							-

Average \$66.88

The detail in Table 144 may be studied with profit by merchants who are interested in measuring the effect which turnover has on wages and salaries as a part of selling costs.

Tables 145 to 148, inclusive, show the amounts of inventories per \$100 of total net sales in the combined and individual years for stores classified by size and by the amounts of wages and salaries paid per \$100 of total net sales. The purpose of these tables is to determine the average size of the inventories in terms of sales for stores paying different amounts of wages and salaries per \$100 of total net sales. When no account is taken of store size, the inventories are lowest when the amounts of wages and salaries in terms of sales are highest. That is, an inverse relationship obtains. When size of store is considered this relationship does not hold. Indeed, an inverse condition holds. That is, small inventories generally accompany small amounts of wages and salaries when both are expressed in sales. In each year the size of the inventories expressed in terms of sales varies inversely with the size of the store similarly expressed.

Tables 149 to 152, inclusive, show the amounts of wages and salaries per \$100 of selling expense for each of the years for stores classified by size, and further by the amounts of inventories per \$100 of total net sales. The total sections of these tables agree with the details of Table 138 and do not call for further comment. The remaining parts of the tables require

brief consideration inasmuch as they show the amounts of wages and salaries per \$100 of selling expense for stores classified by size and by amounts of inventory in terms of sales.

As the stores increase in size, generally speaking, the amounts of wages and salaries per \$100 of selling expense decrease. There is one exception to this rule for the combined years and one each for 1919 and 1918. Otherwise, the condition is general. What is of most interest in this connection, however, is not store size alone, but stores of the same size with varying inventories. When the details are considered from this point of view it is impossible to generalize for all the groups as to whether the amounts increase or decrease as the inventories increase. For some groups of stores, as for instance those with sales of \$80,000 to \$180,000 for the combined years, the amounts decrease, while for other groups, as for instance the group with sales of \$40,000 to \$80,000, there is a tendency for the amounts first to decrease and then to increase with increasing inventories.

Nothing further need be said concerning the amounts for stores with different sales and different inventories in relation to sales. The actual figures are supplied for what they are worth. They constitute standards or norms for these stores, and from year to year show a remarkable consistency.

Brief discussion is required of Table 153. In this table 282 stores

TABLE 150

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense											
					Amount	Per Cent.										
						Graphic										Actual
0 20 40 60 80 100 120 140																
Total (Average)	Total (Average)	149	\$2,135,072	\$1,430,061	\$66.99											100.0
	Under \$20	7	105,711	64,927	61.42											91.7
	\$20 to \$40	83	1,649,518	1,111,412	67.38											100.6
	\$40 to \$60	51	345,965	230,646	66.67											99.5
	\$60 & over	8	33,878	23,076	69.12											101.7
Under \$40	Total (Average)	14	29,019	19,303	66.52											99.3
	Under \$20	-	-	-	-											-
	\$20 to \$40	2	6,275	2,640	42.07											62.8
	\$40 to \$60	8	15,797	10,750	68.05											101.6
	\$60 & over	4	6,945	5,913	85.13											127.1
\$40 to \$60	Total (Average)	55	233,843	170,682	72.99											109.0
	Under \$20	2	7,320	5,875	80.26											119.9
	\$20 to \$40	22	94,720	65,760	69.43											103.7
	\$40 to \$60	28	122,592	91,847	74.92											111.9
	\$60 & over	3	9,211	7,200	78.17											116.7
\$60 to \$100	Total (Average)	56	700,800	479,344	68.40											102.1
	Under \$20	4	34,307	26,569	77.44											115.6
	\$20 to \$40	37	465,124	326,696	70.24											104.9
	\$40 to \$60	14	183,648	116,116	63.23											94.4
	\$60 & over	1	17,721	9,963	56.22											83.9
\$100 & over	Total (Average)	24	1,171,411	760,732	64.94											97.0
	Under \$20	1	64,084	32,483	50.69											75.7
	\$20 to \$40	22	1,083,399	716,316	66.12											98.7
	\$40 to \$60	1	23,928	11,933	49.87											74.5
	\$60 & over	-	-	-	-											-

Average \$66.99

TABLE 151

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES
PER \$100 OF SELLING EXPENSE, FOR 149 STORES CLASSIFIED BY SIZE AND
BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	149	\$1,573,249	\$1,062,031	\$67.51								100.0
	Under \$20	3	32,117	20,714	64.50								95.5
	\$20 to \$40	46	937,441	644,437	68.74								101.8
	\$40 to \$60	60	427,462	275,422	64.43								95.4
	\$60 & over	40	176,229	121,458	63.92								102.1
Under \$40	Total (Average)	42	101,621	71,393	70.25								104.1
	Under \$20	-	-	-	-								-
	\$20 to \$40	6	17,520	9,878	56.38								83.5
	\$40 to \$60	13	27,892	17,855	64.01								94.8
	\$60 & over	23	56,209	43,660	77.67								115.0
\$40 to \$80	Total (Average)	60	331,958	231,207	69.65								103.2
	Under \$20	2	7,270	4,690	64.62								95.7
	\$20 to \$40	15	97,097	67,991	70.02								103.7
	\$40 to \$60	29	144,693	98,140	67.83								100.5
	\$60 & over	14	62,898	60,378	72.83								107.9
\$80 to \$180	Total (Average)	33	422,051	277,850	65.85								97.5
	Under \$20	-	-	-	-								-
	\$20 to \$40	14	194,559	144,701	74.37								110.2
	\$40 to \$60	16	190,370	115,709	60.78								90.0
	\$60 & over	3	37,122	17,420	46.93								69.5
\$180 & over	Total (Average)	14	717,619	481,601	67.11								99.4
	Under \$20	1	24,847	16,016	64.46								95.5
	\$20 to \$40	11	628,265	421,867	67.15								99.5
	\$40 to \$60	2	64,507	43,713	67.77								100.4
	\$60 & over	-	-	-	-								-

Average \$67.51

TABLE 152

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES
PER \$100 OF SELLING EXPENSE, FOR 149 STORES CLASSIFIED BY SIZE AND
BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	149	\$1,037,508	\$681,929	\$65.73								100.0
	Under \$20	4	35,072	22,279	63.52								96.6
	\$20 to \$40	39	501,126	310,982	62.06								94.4
	\$40 to \$60	66	355,540	248,206	69.81								106.2
	\$60 & over	40	145,770	100,462	68.92								104.9
Under \$40	Total (Average)	71	167,592	117,357	70.03								106.5
	Under \$20	1	948	720	75.95								115.5
	\$20 to \$40	10	30,241	21,454	70.94								107.9
	\$40 to \$60	31	68,605	46,395	67.63								102.9
	\$60 & over	29	67,798	48,788	71.96								109.5
\$40 to \$80	Total (Average)	50	311,723	214,788	68.90								104.8
	Under \$20	2	15,032	9,929	66.05								100.5
	\$20 to \$40	15	91,978	54,218	58.95								89.7
	\$40 to \$60	25	161,294	119,452	74.06								112.7
	\$60 & over	8	43,419	31,189	71.83								109.3
\$80 to \$180	Total (Average)	23	322,178	206,361	64.05								97.4
	Under \$20	1	19,092	11,630	60.92								92.7
	\$20 to \$40	9	142,892	91,887	64.31								97.8
	\$40 to \$60	10	125,641	82,359	65.55								99.7
	\$60 & over	3	34,553	20,485	59.29								90.2
\$180 & over	Total (Average)	5	236,015	143,423	60.77								92.5
	Under \$20	-	-	-	-								-
	\$20 to \$40	5	236,015	142,423	60.77								92.5
	\$40 to 60	-	-	-	-								-
	\$60 & over	-	-	-	-								-

Average \$65.73

TABLE 153

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Wages and Salaries per \$100 of Selling Expense					Wages and Salaries per \$100 of Selling Expense per Stock Turnover												
			Amount	Per Cent.				Amount	Per Cent.								Actual			
				Graphic					Graphic											
				0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120	140	160
Total (Average)	Total (Average)	282	\$65.67						100.0	\$29.85										100.0
	Under \$20	17	62.55						95.2	14.21										47.6
	\$20 to \$40	153	65.31						99.5	27.21										91.2
	\$40 & over	112	68.70						104.6	49.07										164.4
Under \$40	Total (Average)	35	71.09						108.5	47.59										158.8
	Under \$20	-	-						-	-										-
	\$20 to \$40	10	60.52						92.2	23.82										96.5
	\$40 & over	25	75.75						115.5	58.25										195.1
\$40 to \$80	Total (Average)	106	71.92						109.5	59.96										155.9
	Under \$20	3	60.89						92.7	14.50										48.6
	\$20 to \$40	45	69.19						105.4	51.45										105.4
	\$40 & over	58	74.55						115.5	49.70										166.5
\$80 to \$180	Total (Average)	98	67.45						102.7	55.50										118.9
	Under \$20	5	76.42						116.4	19.20										61.0
	\$20 to \$40	63	68.05						105.6	50.92										105.6
	\$40 & over	30	65.74						99.5	43.49										145.7
\$180 & over	Total (Average)	45	62.95						95.8	22.48										75.3
	Under \$20	9	60.72						92.5	15.49										45.2
	\$20 to \$40	35	65.58						96.8	24.45										81.9
	\$40 & over	1	49.87						75.9	41.56										159.2

Average \$65.67

Average \$29.85

Average \$65.67

Average \$29.85

are classified for 1919, by size and by the amounts of inventory in relation to sales. For each group of stores two measures of the amounts of wages and salaries are supplied. The amounts are expressed, first, in relation to selling expense, and second, in relation to selling expense per stock turnover.*

For the 282 stores the proportion which wages and salaries constitutes of each \$100 selling expense is \$65.67. As the stores increase in size, this pro-

* The method by which this unit is computed is explained on page 4, item 21.

portion decreases, the amount for the stores with sales of \$180,000 and over being \$62.93. When the average amount of wages and salaries per \$100 of selling expense—\$65.67—is expressed per stock turnover, it becomes \$29.85. In other words, stock is turned on the average 2.2 times. Wages and salaries per \$100 of total selling expense per turnover decrease as the stores increase in size, the amount being \$22.48 for the stores which sold, during 1919, \$180,000 and over worth of goods.

As the amounts of inventory in relation to sales increase for each group of stores, as measured by size, the amounts which wages and salaries constitute of each \$100 of selling expense per turnover rapidly increase. The amounts for the group of stores with sales of \$40,000 to \$80,000 may be used to illustrate this. When the inventories were less than \$20 per \$100 of total net sales, it cost \$14.50 in wages and salaries per \$100 of selling expense per turnover. When the inventories were \$20 to \$40 per \$100 of total net sales, the amount was \$31.45, and when the inventories were \$40 and over, it was \$49.70. That is, the costs rapidly increase as the inventories in terms of sales increase in size. This is only another way of saying that, to sell a given amount of goods in a year, the costs attributable to wages and salaries in relation to the rates of turnover rapidly decrease as the inventories in relation to the sales decrease. That is, the cost per unit of turnover becomes less as the rates at which the stock is turned, increase.

The details of Table 153 should be considered in connection with those of Table 144.

C.—Summary.

- (1). The amounts of wages and salaries per \$100 of total net sales for all stores, for each of the years, tend generally to decrease as the amounts of inventory per \$100 of total net sales increase.

- (2). The amounts of wages and salaries per \$100 of total net sales for the amount sold for each dollar of inventory and also per stock turnover increase as the size of the inventory in terms of sales increases. This holds for stores treated as a whole and also when classified by size.
- (3). The amounts of wages and salaries per \$100 of total net sales and per \$100 of total net sales for the amount sold per dollar of inventory decreased between 1914 and 1918, and 1918 and 1919.
- (4). The amounts of wages and salaries per \$100 of selling expense tend to increase as the inventories in terms of sales increase, for all stores. For stores of a given size, the direction of change is uncertain.
- (5). The amounts of wages and salaries per \$100 of total selling expense per stock turnover decrease as stores increase in size and increase as the amounts of inventory in terms of sales increase.

3.—YEARLY AMOUNTS OF WAGES AND SALARIES IN RELATION TO THE AMOUNTS OF GOODS SOLD PER FULL-TIME SALES-PERSON, AND TO THE METHODS BY WHICH SALESMEN ARE PAID, FOR STORES CLASSIFIED BY YEARS, BY SIZE, AND BY LOCATION.

The discussion of the amounts of wages and salaries paid to those who are selling goods under the condition established in this section closely follows the corresponding section, pages 85 to 127, relating to the total amount of selling expense for stores similarly classified.*

(1)—YEARLY AMOUNTS OF WAGES
AND SALARIES IN RELATION TO
THE AMOUNTS OF GOODS SOLD
PER FULL-TIME SALES-PERSON.

This section has to do with the amounts of wages and salaries paid in stores when they are classified by amounts of goods sold per full-time sales-person; the discussion relating, first, to stores in different years, second, to stores of different size, and third, to stores of different size and location.

A.—*Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, 1919, 1918, and 1914.*

The year-to-year comparison of the amounts of wages and salaries paid to salesmen is based upon the records of the 146 identical stores which are discussed on page 86. The average expense in wages and salaries to sell \$100 worth of goods was \$7.20 for 1919, 1918, and 1914, combined. In 1914 the amount was \$7.45, in 1918, \$7.38, and in 1919, \$6.97. That is, between 1914 and 1918, and 1918 and 1919, the amounts decreased by 0.9 and 5.6 per cent., respectively. Dur-

ing these years, both sales and wages and salaries were increasing. When the amounts of wages and salaries paid are expressed in terms of sales, the decreases mean that from year to year the increase was greater in sales than in wages and salaries.

The amounts of wages and salaries paid by stores to salesmen in each of the different years may also be expressed in terms of \$1,000 sold per person. This is done in Table 154. The reason for expressing the amounts in this form may be stated as follows: The total net sales, the amounts of wages and salaries, the number of salesmen, and the average amounts of goods sold per salesman, all vary from store to store. In order to take account in a single measure, of these different conditions, and to reduce them to a unit basis, use is made of this complex unit.†

The amounts for the combined and the respective years are \$0.45, \$0.66, \$0.47, and \$0.34. That is, between 1914 and 1918, and 1918 and 1919, they decreased, the percentages of decrease being larger than when wages and salaries are expressed in terms of total net sales alone. Moreover, for the stores in each of the years when they are classified by the amounts sold per full-time sales-person, the expenses attributable to wages and salaries, measured in this manner, decrease as sales per full-time sales-person increase. In the combined years, in the stores where salesmen

* The methods by which the amounts are computed is described on page 4.

† The method by which the whole process is carried out is described by formula on page 4, item 22.

sold less than \$12,000 per year, the average amount of wages and salaries per \$100 of sales for each \$1,000 sold was \$0.84. For the stores in which salesmen sold \$32,000 and over, the corresponding expense was \$0.13. How nearly these results are duplicated in the individual years may be seen by consulting the amounts and their graphic representation in Table 154.

In Table 155, for the combined and for each of the years under consideration, the same stores are classified by the amounts of wages and salaries paid per \$100 of total net sales. For each group of stores the average amount of sales per full-time salesperson is calculated. For the combined years, salesmen sold on the average \$16,149 worth of goods. In 1914, 1918, and 1919 the correspond-

TABLE 154

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919, 1918, AND 1914

Years	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores-years	Wages and Salaries per \$100 of Total Net Sales					Wages and Salaries per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person																															
			Amount	Per Cent.				Amount	Per Cent.																														
				Graphic					Graphic																														
				0	20	40	60	80	100	120	0	20	40	60	80	100	120	140	160	180	200	220	Actual																
Total (Average)	Total (Average)	458	\$7.20					100.0	\$0.45					100.0																									
	Under \$12	151	7.86					109.2	0.84					186.7																									
	\$12 to \$16	107	7.46					103.6	0.54					120.0																									
	\$16 to \$24	118	7.69					106.8	0.40					88.9																									
	\$24 to \$32	59	6.01					85.5	0.22					48.9																									
	\$32 & over	23	4.79					66.5	0.13					28.9																									
1919	Total (Average)	146	6.97					96.8	0.34					75.6																									
	Under \$12	15	5.84					81.1	0.60					135.3																									
	\$12 to \$16	50	7.70					106.9	0.55					122.2																									
	\$16 to \$24	61	8.20					113.9	0.44					97.8																									
	\$24 to \$32	21	5.72					79.4	0.21					46.7																									
	\$32 & over	19	4.92					60.3	0.13					28.9																									
1918	Total (Average)	146	7.38					102.5	0.47					104.4																									
	Under \$12	50	7.27					101.0	0.72					160.0																									
	\$12 to \$16	42	7.81					108.5	0.58					128.9																									
	\$16 to \$24	37	7.39					102.6	0.37					82.2																									
	\$24 to \$32	14	6.80					94.4	0.25					55.6																									
	\$32 & over	3	3.49					48.5	0.09					20.0																									
1914	Total (Average)	146	7.45					105.5	0.88					146.7																									
	Under \$12	86	8.51					118.2	0.95					211.1																									
	\$12 to \$16	36	6.72					95.3	0.48					106.7																									
	\$16 to \$24	20	5.57					77.4	0.30					66.7																									
	\$24 to \$32	4	8.16					113.3	0.30					66.7																									
	\$32 & over	1	1.76					24.4	0.05					11.1																									
Average \$7.20																				Average \$0.45																			

Average \$7.20

Average \$0.45

ing amounts were, respectively, \$11,-345, \$15,613, and \$20,437.

When the stores paid less than \$4 in wages and salaries per \$100 of total net sales, salesmen, on the average, for the combined years, sold \$17,908; when they paid \$4 to \$8 in wages and salaries for each \$100 sold, the salesmen sold on the average \$16,905; and when they paid \$8 and over the sales per full-time sales-

person averaged \$14,177. As the amounts paid in wages and salaries per \$100 of total net sales increase, the sales per full-time sales-person decrease. In each of the years, the same general tendency with minor exceptions holds. The details of Table 155 supplement those of Table 154 and should be read in connection with them.

Another way of stating the rela-

TABLE 155

TOTAL NET SALES, NUMBER OF SALES-PEOPLE, AND AMOUNT OF SALES PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED BY AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Wages & Salaries per \$100 of Total Net Sales	Number of Store-years	Total Net Sales	Number of Sales-people	Sales per Full-time Sales-person										
					Amount	Per Cent.									Actual
						Graphic									
						0	20	40	60	80	100	120	140		
Total (Average)	Total (Average)	438	\$42,655,162	2,641.4	\$16,149										100.0
	Under \$4	99	6,131,664	342.4	17,908										110.9
	\$4 to \$8	220	24,360,036	1,441.0	16,905										104.7
	\$8 & over	119	12,163,462	858.0	14,177										87.8
1919	Total (Average)	146	19,931,753	975.3	20,437										126.6
	Under \$4	44	3,818,599	178.8	21,357										132.2
	\$4 to \$8	68	10,792,646	500.3	21,572										133.6
	\$8 & over	34	5,320,508	296.2	17,963										111.2
1918	Total (Average)	146	13,981,287	895.5	15,613										97.7
	Under \$4	35	1,673,416	116.0	14,426										89.3
	\$4 to \$8	67	7,945,465	468.3	16,967										105.1
	\$8 & over	44	4,362,406	311.2	14,018										86.8
1914	Total (Average)	146	6,742,122	770.6	11,345										70.3
	Under \$4	20	639,649	47.6	13,438										83.2
	\$4 to \$8	85	5,621,925	472.4	11,901										73.7
	\$8 & over	41	2,480,548	250.6	9,898										61.3

Average \$16,149

tions between wages and salaries paid to salesmen and sales is shown in Table 156. For stores in the combined years, the average amount of sales secured for each \$100 of wages and salaries paid was \$1,389. In 1914 it was \$1,343, in 1918, \$1,355, and in 1919, \$1,436. That is, the average amount increased slightly between 1914 and 1918 and by a larger margin between 1918 and 1919.

For the combined and for the separate years, the sales per \$100 of wages and salaries paid, increase as the amounts sold per full-time sales-person increase. That is, the larger the amount of goods sold by each salesman in a year, the greater is the return in sales to the merchant for each \$100 paid in the form of wages and salaries. This is only another way of saying that with larger sales per sales-person, savings can be made in wages and salaries measured in terms of total sales. The actual amounts of sales secured for each \$100 paid in wages may be seen by consulting Table 156.

Other methods of stating the amounts of wages and salaries paid to salesmen in each of the different years, for stores classified by the amounts of sales per full-time sales-person, are found in Table 157.

For the combined years, out of every \$100 of selling expense, \$66.88 was paid to salesmen in the form of wages and salaries. In 1914 the amount was \$65.59, in 1918, \$67.47, and in 1919, \$67.05. That is, the amounts increased between 1914 and 1918 and slightly decreased between

1918 and 1919. Generally speaking, in each of the years when all the stores are considered, two thirds of the total selling expense is paid to salesmen in the form of wages and salaries. However, when such amounts are expressed in terms of total selling expense for each \$1,000 sold per full-time sales-person the direction of change from year to year is different.* For the combined years the average stated in this form is \$4.14. For 1914 it was \$5.78, for 1918, \$4.32, and for 1919, \$3.28. That is, between 1914 and 1918, and 1918 and 1919, there was a decrease. This is due, of course, to the increased sales per full-time sales-person in 1918 over 1914, and in 1919 over 1918, as shown in Table 155.

For the combined years, wages and salaries per \$100 of selling expense decrease as the amounts sold per full-time sales-person increase. That is, wages and salaries are relatively smaller proportions of total selling expense in stores where salesmen sell large than where they sell small amounts per year. This general tendency also characterizes 1919 and 1918, and 1914, if the five stores having average sales per full-time sales-person of \$24,000 and over in 1914 are ignored. In comparisons of this type, however, salesmen's activities are not reduced to a unit basis. This is done in the right-hand columns of Table 157, where wages and salaries

* The occasions for expressing the amounts in this form are analogous to those for expressing them in a similar form in terms of sales. See page 227 for a brief statement of this fact.

TABLE 156

TOTAL WAGES AND SALARIES, TOTAL NET SALES, AND AMOUNT OF TOTAL NET SALES
PER \$100 OF WAGES AND SALARIES, FOR 146 IDENTICAL STORES
CLASSIFIED BY AMOUNT OF SALES PER FULL-TIME
SALES-PERSON, 1919, 1918, AND 1914

Years	Amount of Sales per Full-time Sales-person (in 000's)	Number of Store-years	Total Wages & Salaries	Total Net Sales	Total Net Sales per \$100 of Wages and Salaries										
					Amount	Per Cent.									Actual
						Graphic									
						0	20	40	60	80	100	120	140	160	
Total (Average)	Total (Average)	438	\$3,070,748	\$42,655,162	\$1,389										100.0
	Under \$12	151	596,344	7,564,218	1,272										91.6
	\$12 to \$16	107	671,268	8,997,104	1,340										96.5
	\$16 to \$24	118	1,267,825	16,487,408	1,300										93.6
	\$24 to \$32	39	375,119	6,239,946	1,663										119.7
	\$32 & over	23	160,192	3,346,466	2,069										150.4
1919	Total (Average)	146	1,368,275	19,931,753	1,436										103.4
	Under \$12	15	42,298	724,711	1,713										123.3
	\$12 to \$16	30	169,664	2,202,402	1,298										93.4
	\$16 to \$24	61	753,695	9,186,739	1,219										87.8
	\$24 to \$32	21	270,722	4,735,634	1,749										125.9
	\$32 & over	19	151,896	3,064,267	2,031										146.2
1918	Total (Average)	146	1,031,569	15,981,287	1,355										97.6
	Under \$12	50	174,483	2,369,066	1,375										99.0
	\$12 to \$16	42	321,367	4,114,749	1,280										92.2
	\$16 to \$24	37	435,766	5,894,123	1,353										97.4
	\$24 to \$32	14	92,487	1,360,445	1,471										105.9
	\$32 & over	3	7,426	212,905	2,867										206.4
1914	Total (Average)	146	650,904	8,742,122	1,343										96.7
	Under \$12	86	379,563	4,460,441	1,175										84.6
	\$12 to \$16	35	180,217	2,679,954	1,497										107.1
	\$16 to \$24	20	78,344	1,406,546	1,795										129.2
	\$24 to \$32	4	11,910	145,867	1,225										88.2
	\$32 & over	1	870	49,314	5,668										406.1 ^a
Average \$1,389															

^a Full length not shown

are expressed in terms of selling expense for each \$1,000 sold per full-time sales-person.* In the combined and in the individual years the amounts rapidly decrease as the sales-

men's sales increase. In the combined years when salesmen sold less than \$12,000, the cost in wages and salaries measured in this manner was \$7.49; when they sold \$32,000 and over, it was \$1.55.

* The method by which this unit is computed is explained on page 4, item 24.

In each of the different years, for

TABLE 157

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED
BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON,
1919, 1918, AND 1914

Years	Amount of Sales per Full-time Sales-person (in 000's)	Number of Store-years	Wages and Salaries per \$100 of Selling Expense						Wages and Salaries per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.						Amount	Per Cent.											
				Graphic							Graphic											
				0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120	140	160	180	200
Total (Average)	Total (Average)	458	\$66.68							100.0	\$4.14											100.0
	Under \$12	151	70.25							105.0	7.49											180.9
	\$12 to \$16	107	68.04							101.7	4.96											119.6
	\$16 to \$24	118	66.55							102.5	5.59											86.5
	\$24 to \$32	59	59.82							89.4	2.18											52.7
	\$32 & over	23	57.41							85.8	1.55											57.4
1919	Total (Average)	146	67.05							100.3	5.28											79.2
	Under \$12	15	83.58							94.8	6.51											157.2
	\$12 to \$16	30	76.04							113.7	5.43											151.2
	\$16 to \$24	61	72.34							108.2	5.84											92.8
	\$24 to \$32	21	57.24							85.5	2.08											50.2
	\$32 & over	19	57.16							85.5	1.54											37.2
1918	Total (Average)	146	67.47							100.9	4.52											104.3
	Under \$12	50	71.00							106.2	6.99											168.8
	\$12 to \$16	42	69.56							105.7	5.17											124.9
	\$16 to \$24	37	65.01							97.2	3.27											79.0
	\$24 to \$32	14	67.24							100.5	2.46											59.4
	\$32 & over	3	62.50							93.5	1.67											40.3
1914	Total (Average)	146	65.69							99.1	5.78											139.6
	Under \$12	86	70.77							108.8	7.89											190.6
	\$12 to \$16	35	60.07							89.8	4.28											103.4
	\$16 to \$24	20	58.90							84.9	3.05											75.7
	\$24 to \$32	4	71.68							107.2	2.60											62.8
	\$32 & over	1	61.92							92.6	1.63											39.4

Average \$66.08

Average \$4.14

Average \$66.08

Average \$4.14

stores classified by the amount sold per full-time sales-person, wages and salaries expressed either in terms of selling expense alone or in terms of selling expense for each \$1,000 sold per full-time sales-person, may be seen by consulting Table 157. The direction of change in the amounts is evident from the graphic summary.

A brief summary of Tables 154 to 157, inclusive, may be expressed as

follows: First, the amounts of wages and salaries, measured in terms of sales, and in terms of sales for each \$1,000 sold per full-time sales-person, decreased between 1914 and 1918, and 1918 and 1919. Second, the amounts sold per full-time sales-person increased between 1914 and 1918, and 1918 and 1919. Third, as the amounts of wages and salaries per \$100 of total net sales

increase, sales per full-time sales-person decrease. Fourth, the amounts of total net sales secured for each \$100 of wages and salaries paid, increased between 1914 and 1918, and 1918 and 1919. Fifth, as the sales per full-time sales-person increase, wages and salaries in terms of sales alone, or combined with the amount sold per sales-person, decrease. Sixth, the amounts of wages and salaries, when expressed for each \$100 of selling expense, increased between 1914 and 1918, and decreased between 1918 and 1919. When they are expressed in the complex unit they decreased between 1914 and 1918, and 1918 and 1919.

B.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size, 1919, 1918, and 1914.

In the discussion of the amounts of wages and salaries paid to salesmen in stores of different size and with different amounts sold per full-time sales-person, the records of two groups of stores are available. For the year 1919 alone, as is shown in Table 158, 269 stores may be studied. Wages and salaries are measured, first, in terms of sales, and second, in terms of sales and the rapidity with which stock is turned in each of the groups.

For the 269 stores in 1919 it cost in wages and salaries paid to salesmen for each \$100 of total net sales, \$6.68. For stores with sales under \$40,000, the average cost was \$4.19; for stores

with sales of \$40,000 to \$80,000 it was \$5.40; for stores with sales of \$80,000 to \$180,000 it was \$6.72; and for stores with sales of \$180,000 and over, it was \$7.28. That is, as the stores increase in size, the amounts paid in wages and salaries per \$100 of total net sales increase. These increases, however, from store-group to store-group are probably better shown for stores in which the same amount is sold per full-time sales-person, but in which the total sales are different. Any one of the groups of stores in Table 158 may be chosen to illustrate this. If the stores are used in which the sales per full-time sales-person were \$16,000 to \$24,000 per year, the expense attributable to selling in the stores with sales under \$40,000 was \$4.42. The corresponding amount for those which sold \$40,000 to \$80,000 was \$4.69; for those which sold from \$80,000 to \$180,000, \$6.38; and for those which sold \$180,000 and over, \$9.86. Similar differences are observed for the stores which had larger and smaller amounts sold per full-time sales-person. It is unnecessary to set these out in detail inasmuch as they are contained in Table 158.

When the amounts of wages and salaries paid to salesmen are expressed in terms of \$100 of total net sales per stock turnover, the disadvantages associated with the large stores, however, are reduced. The amounts are smallest in stores which are largest, although for those with sales less than \$180,000 they slightly increase with store size. It is worth-

TABLE 158

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER STOCK TURN-OVER, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in '00's)	Amount of Sales per Full-time Salesperson (in '00's)	Number of Stores	Wages and Salaries per \$100 of Total Net Sales										Wages and Salaries per \$100 of Total Net Sales per Stock Turnover															
			Amount	Per Cent.										Amount	Per Cent.													
				Graphic											Graphic													
				0	20	40	60	80	100	120	140	160	0		20	40	60	80	100	120	140	160						
Total (Average)	Total (Average)	268	\$6.68											100.0	\$5.04											100.0		
	Under \$12	30	5.96											89.2	3.51											115.5		
	\$12 to \$16	56	7.24											108.4	3.45											113.5		
	\$16 to \$24	103	7.57											113.3	3.79											124.7		
	\$24 to \$32	44	5.89											88.2	2.46											80.9		
	\$32 & over	36	5.29											79.2	1.89											62.2		
Under \$40	Total (Average)	31	4.19											62.7	2.79											91.8		
	Under \$12	9	5.49											82.2	3.92											128.9		
	\$12 to \$16	4	4.20											64.1	2.38											76.3		
	\$16 to \$24	7	4.42											66.2	3.40											111.8		
	\$24 to \$32	7	3.24											48.5	1.91											62.8		
	\$32 & over	4	2.90											43.4	1.81											69.5		
\$40 to \$60	Total (Average)	103	5.40											80.8	3.00											98.7		
	Under \$12	16	6.65											99.6	4.43											145.7		
	\$12 to \$16	34	6.29											94.2	3.70											121.7		
	\$16 to \$24	31	4.69											70.2	2.61											85.9		
	\$24 to \$32	9	5.49											82.2	2.61											85.9		
	\$32 & over	13	3.00											44.9	1.58											52.0		
\$60 to \$100	Total (Average)	92	6.72											100.6	3.54											116.4		
	Under \$12	4	6.14											91.9	3.23											106.2		
	\$12 to \$16	15	8.55											128.0	4.28											140.8		
	\$16 to \$24	50	6.38											95.5	3.54											116.4		
	\$24 to \$32	14	5.74											85.9	2.73											89.8		
	\$32 & over	9	7.62											114.1	2.72											89.5		
\$100 & over	Total (Average)	43	7.28											109.0	2.70											88.8		
	Under \$12	1	4.57											68.4	1.83											60.2		
	\$12 to \$16	3	7.35											110.0	2.53											83.2		
	\$16 to \$24	15	9.86											147.6	3.79											124.7		
	\$24 to \$32	14	6.20											91.3	2.35											77.3		
	\$32 & over	10	5.08											76.0	1.59											52.5		
Average \$6.68																			Average \$5.04									

while in this connection to indicate the precise amounts. When all the stores are considered as a unit, it cost \$3.04 in wages and salaries per \$100 of total net sales per stock turnover. For the stores with sales under \$40,000, the amount was \$2.79; for those

with sales of \$40,000 to \$80,000, \$3.00; for those with sales of \$80,000 to \$180,000, \$3.54; and for those with sales of \$180,000 and over, \$2.70. Using for illustration the group of stores in which the sales per full-time sales-person per year were between

\$12,000 and \$16,000, it cost on the average for all stores, \$3.45. For those with sales under \$40,000, it cost \$2.38; for those with sales of \$40,000 to \$80,000, \$3.70; for those with sales of \$80,000 to \$180,000, \$4.28; and for those with sales of \$180,000 and over, \$2.53.

The relative advantage which the large stores have in the amounts of wages and salaries paid, when they are measured in this form as contrasted to sales alone, is, of course, attributable to the relatively greater rapidity with which they turn their stock. The actual rates for 282 stores, classified by size, are shown in Table 41. It is unnecessary to give the figures in this case.

The details of Table 158 have a practical significance to merchants, which it is worth-while to mention. When the amounts of sales per full-time sales-person increase, the cost of operation in wages and salaries per \$100 of total net sales decreases. This is true for the stores treated as a whole and when classified by size. For the group of 103 stores with sales of \$40,000 to \$80,000, it is found that the amount of wages and salaries per \$100 of total net sales is \$6.65 for those in which the salesmen sold less than \$12,000, while it is \$3.00 for the stores in which the salesmen sold \$32,000 and over. Between these limits the amounts decrease with a single exception as the amounts sold per full-time sales-person increase. That is, in practical operation, the cost of selling, expressed in sales, may be decreased more than 50 per cent.

through increasing the amounts sold per full-time sales-person.

Still greater savings in expenses, so far as wages and salaries are concerned, may be secured by increasing the rate at which stock is turned. The same group of stores—those with sales of \$40,000 to \$80,000—may be used to illustrate this point. For the 16 stores in which salesmen sold less than \$12,000 for the year, it cost in wages and salaries per \$100 of total net sales per turnover, \$4.43. For those in which the salesmen sold between \$12,000 and \$16,000, the corresponding cost was \$3.70. For those in which the salesmen sold \$32,000 and over, it cost but \$1.58. The regularity with which the amounts, measured in this form, decrease for the different groups of stores is not uniform. Over the entire range, however, the direction of change is unmistakable and points at once to the conclusion that the greater the sales per full-time sales-person the smaller is the expense of wages and salaries for each \$100 of total net sales per turnover.

The amounts of wages and salaries for these 269 stores in 1919 may also be expressed in terms of sales for each \$1,000 sold per full-time sales-person. This is done in the part of Table 159 carrying this caption. For all stores the average amount is \$0.33. For those with sales under \$40,000, it is \$0.25; for those with sales of \$40,000 to \$80,000, it is \$0.32; for those with sales of \$80,000 to \$180,000, \$0.35; and for those with sales of \$180,000 and over, \$0.31. Within

each of the groups of stores when they are classified by size, the amounts rapidly decrease as the sales per full-time sales-person increase. By using again the 103 stores with sales of \$40,000 to \$80,000 and the unit de-

scribed above, it is found that it cost the stores in which salesmen sold less than \$12,000, \$0.66, while for those in which the salesmen sold \$32,000 and over, it cost \$0.07. Between these limits, the amounts decrease as the

TABLE 159

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Salesperson (in 000's)	Number of Stores	Wages and Salaries per \$100 of Total Net Sales												Wages and Salaries per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Salesperson																	
			Amount	Per Cent.											Amount	Per Cent.											Actual					
				Graphic	Actual	Amount	Graphic	Actual																								
									0	20	40	60	80	100		120	140	160	0	20	40	60	80	100	120	140		160	180			
Total (Average)	Total (Average)	269	\$6.60												100.0	\$0.33												100.0				
	Under \$12	30	5.96												89.2	0.58												175.8				
	\$12 to \$16	56	7.24												106.4	0.51												154.5				
	\$16 to \$24	103	7.57												113.3	0.40												121.2				
	\$24 to \$32	44	5.89												88.2	0.21												63.6				
	\$32 & over	36	5.29												79.2	0.13												39.4				
Under \$40	Total (Average)	31	4.19												62.7	0.25												75.8				
	Under \$12	9	5.49												82.2	0.55												166.7				
	\$12 to \$16	4	4.28												64.1	0.29												87.9				
	\$16 to \$24	7	4.42												66.2	0.22												66.7				
	\$24 to \$32	7	3.24												48.5	0.11												33.6				
	\$32 & over	4	2.90												43.4	0.08												24.2				
\$40 to \$50	Total (Average)	103	5.40												80.8	0.32												97.0				
	Under \$12	16	6.65												99.6	0.56												200.0*				
	\$12 to \$16	34	6.29												94.2	0.44												133.3				
	\$16 to \$24	31	4.69												70.2	0.25												75.8				
	\$24 to \$32	9	5.49												82.2	0.20												60.6				
	\$32 & over	13	3.00												44.9	0.07												21.2				
\$50 to \$100	Total (Average)	92	6.72												100.6	0.35												106.1				
	Under \$12	4	6.14												91.9	0.59												178.8				
	\$12 to \$16	15	8.55												128.0	0.63												190.3*				
	\$16 to \$24	50	6.56												95.5	0.34												103.0				
	\$24 to \$32	14	5.74												85.9	0.31												93.9				
	\$32 & over	9	7.62												114.1	0.20												60.9				
\$100 & over	Total (Average)	43	7.28												109.0	0.31												93.9				
	Under \$12	1	4.57												68.4	0.44												133.3				
	\$12 to \$16	3	7.35												110.0	0.51												154.5				
	\$16 to \$24	15	9.06												147.6	0.52												157.6				
	\$24 to \$32	14	6.10												91.3	0.22												66.7				
	\$32 & over	10	5.06												76.0	0.12												36.4				
			Average \$6.60															Average \$0.33														

Average \$6.60

Average \$0.33

*Full length not shown

amounts sold per salesman increase. The nature of these decreases as well as the actual amounts may be observed by consulting Table 159.

Table 160 shows the association between the amounts of wages and salaries paid per \$100 of total net sales and the average sales per full-time sales-person. The total section supplements the detail for 146 stores in 1919, as shown in Table 155. The

remaining parts show the average amounts sold in stores of different size, having different wage and salary expense in relation to sales. Sufficient attention has already been given to the amounts for the stores treated as a whole. The condition for a single group may be illustrated by choosing again the group of 103 stores with sales of \$40,000 to \$80,000. When the amount of wages and salaries per

TABLE 160

TOTAL NET SALES, NUMBER OF FULL-TIME SALES-PEOPLE, AND AMOUNT OF SALES PER FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Wages & Salaries per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Number of Full-time Sales-people	Sales per Full-time Sales-person													
					Amount	Per Cent.												Actual
						Graphic												
						0	20	40	60	80	100	120	140	160	180	200		
Total (Average)	Total (Average)	269	\$33,687,842	1,666.5	\$20,215													100.0
	Under \$4	77	5,674,150	266.5	21,291													105.3
	\$4 to \$8	137	19,511,844	943.7	20,676													102.3
	\$8 & over	55	8,501,848	456.3	18,632													92.2
Under \$40	Total (Average)	31	963,213	56.8	16,958													83.9
	Under \$4	15	467,511	23.6	19,810													98.0
	\$4 to \$8	14	436,247	27.3	15,980													79.1
	\$8 & over	2	59,455	5.9	10,077													49.8
\$40 to \$80	Total (Average)	103	5,872,443	353.3	16,622													82.2
	Under \$4	39	2,112,534	104.8	20,158													99.7
	\$4 to \$8	49	2,875,452	177.8	16,172													80.0
	\$8 & over	15	884,457	70.7	12,510													61.9
\$80 to \$180	Total (Average)	92	10,840,797	564.2	19,214													95.0
	Under \$4	20	2,125,457	111.5	19,062													94.3
	\$4 to \$8	45	5,529,271	279.4	19,790													97.9
	\$8 & over	27	3,186,069	173.3	18,365													90.9
\$180 & over	Total (Average)	43	16,011,389	692.2	23,131													114.4
	Under \$4	3	968,648	26.6	36,415													180.1
	\$4 to \$8	29	10,670,874	459.2	23,238													115.0
	\$8 & over	11	4,371,867	206.4	21,182													104.8

Average \$20,215

\$100 of total net sales is less than \$4, the average amount sold per full-time sales-person is \$20,158. When the amount of wages and salaries per \$100 of total net sales is between \$4 and \$8, the amount of sales per full-time sales-person is \$16,172; and when the corresponding amount of wages and salaries is \$8 and over, the amount of sales is \$12,510. Table 160 supplements Table 159, and should be considered in connection with it.

In the discussion of the relation of wages and salaries to sales, Table 161 is of interest. For the 269 stores which are studied, \$1,496 in sales were secured in 1919 for each \$100 of wages and salaries paid. As the stores increase in size the amounts of sales secured for each \$100 of wages and salaries decrease. For those with sales under \$40,000, the average amount is \$2,385; for those with sales of \$180,000 and over, it is \$1,374. Within each group of stores, however, when classified by size, the amounts increase as the sales per full-time sales-person increase. For the 16 stores which sold between \$40,000 and \$80,000, and in which the amount sold per full-time sales-person was less than \$12,000, \$1,505 were secured in sales for each \$100 of wages and salaries paid. For the 13 stores having the same amount of sales, but in which each salesman sold \$32,000 and over, \$3,329 in sales were secured for each \$100 of wages and salaries paid. Similar increases follow for the stores in the other size-groups, although in some the amounts are erratic and the direction of change

uncertain, due primarily to the few stores which are included.

The foregoing discussion of the amounts of wages and salaries paid to salesmen per \$100 of total net sales refers to 1919. Sales were high in this year, due not only to the amounts of goods sold, but also to prices realized. In view of this fact, it has been thought worth-while to study, in this connection, a group of identical stores for the years 1914, 1918, and 1919. Fewer records are available for this purpose, but those which can be used are probably sufficient to serve as a basis for generalization. They are certainly helpful in measuring the condition in 1919 relative to the earlier years.

In Tables 162 to 165, inclusive, 146 stores classified by size and by the amounts of goods sold per full-time sales-person in 1919, 1918, and 1914 are studied for the purpose of determining the amounts of wages and salaries, measured in different ways, which are paid to salesmen. The discussion of the 269 stores for 1919 had to do primarily with the amounts paid in stores of different size and with different sales per full-time sales-person. In the discussion of Tables 162 to 165, inclusive, chief interest lies in the amounts paid in the different years. These are fully set out in the tables, the units of analysis being the same as those used in Table 159.

For the 146 stores under consideration, it is shown in Table 154 that the amounts of wages and salaries per \$100 of total net sales and per \$100 of sales for the amount sold per full-

TABLE 161

WAGES AND SALARIES, TOTAL NET SALES, AND AMOUNT OF TOTAL NET SALES PER \$100 OF WAGES AND SALARIES, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Salesperson (in 000's)	Number of Stores	Total Wages & Salaries	Total Net Sales	Total Net Sales per \$100 of Wages and Salaries																
					Amount	Per Cent.															
						Graphic															Actual
						0	20	40	60	80	100	120	140	160	180	200	220	240			
Total (Average)	Total (Average)	269	\$2,251,131	\$33,637,842	\$1,436																100.0
	Under \$12	30	111,794	1,975,394	1,678																112.2
	\$12 to \$16	56	356,394	4,303,136	1,391																92.3
	\$16 to \$24	103	1,040,507	13,737,725	1,320																88.2
	\$24 to \$32	44	455,255	7,722,927	1,696																113.4
	\$32 & over	36	297,261	5,428,760	1,890																126.3
Under \$40	Total (Average)	31	40,392	963,213	2,385																159.4
	Under \$12	9	13,689	249,200	1,821																121.7
	\$12 to \$16	4	5,472	127,962	2,353																156.3
	\$16 to \$24	7	10,132	230,157	2,260																151.1
	\$24 to \$32	7	6,953	212,163	3,069																206.5
	\$32 & over	4	4,172	143,731	3,445																230.3
\$40 to \$60	Total (Average)	103	316,975	5,972,443	1,853																123.9
	Under \$12	16	56,518	850,429	1,505																100.6
	\$12 to \$16	34	123,464	1,961,395	1,589																106.2
	\$16 to \$24	31	84,406	1,800,655	2,133																142.6
	\$24 to \$32	9	32,562	593,340	1,822																121.8
	\$32 & over	13	20,025	666,604	3,329																222.5
\$60 to \$180	Total (Average)	92	728,502	10,840,797	1,498																98.5
	Under \$12	4	24,029	391,470	1,529																108.9
	\$12 to \$16	15	137,134	1,604,273	1,170																78.2
	\$16 to \$24	60	382,901	5,997,547	1,567																104.7
	\$24 to \$32	14	98,842	1,722,331	1,743																116.5
	\$32 & over	9	85,697	1,125,176	1,313																87.8
\$180 & over	Total (Average)	43	1,165,332	16,011,369	1,374																91.8
	Under \$12	1	17,550	364,295	2,190																146.4
	\$12 to \$16	3	90,314	1,229,506	1,361																91.0
	\$16 to \$24	15	563,118	5,709,366	1,014																67.8
	\$24 to \$32	14	316,983	6,194,993	1,639																109.6
	\$32 & over	10	177,367	3,493,229	1,969																131.6

Average \$1,496

TABLE 162

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED
BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-
PERSON, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Store- years	Wages and Salaries per \$100 of Total Net Sales												Wages and Salaries per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person																														
			Amount	Per Cent.											Amount	Per Cent.																													
				Graphic												Graphic																													
				0	20	40	60	80	100	120	140	0	20	40	60	80	100	120	140	160	180	200	220	Actual																					
Total (Average)	Total (Average)	426	\$7.20												100.0	\$0.45												100.0																	
	Under \$12	121	7.06												109.2	0.84												186.7																	
	\$12 to \$16	107	7.46												103.6	0.54												120.0																	
	\$16 to \$24	118	7.69												106.8	0.40												86.9																	
	\$24 to \$32	39	6.01												85.7	0.22												46.9																	
Under \$40	\$32 & over	25	4.79												66.5	0.15												26.9																	
	Total (Average)	125	5.98												65.1	0.58												129.9																	
	Under \$12	71	7.40												102.8	0.95												211.1																	
	\$12 to \$16	23	4.81												66.8	0.35												77.6																	
	\$16 to \$24	17	4.49												62.4	0.24												55.3																	
\$40 to \$80	\$24 to \$32	10	3.50												48.6	0.13												26.9																	
	\$32 & over	4	2.37												36.9	0.06												13.3																	
	Total (Average)	163	6.48												89.6	0.48												106.7																	
	Under \$12	63	7.85												109.0	0.79												175.6																	
	\$12 to \$16	48	6.61												90.4	0.47												104.4																	
\$80 to \$100	\$16 to \$24	38	5.11												71.0	0.28												62.2																	
	\$24 to \$32	7	5.25												72.9	0.19												42.2																	
	\$32 & over	7	2.44												33.9	0.06												13.3																	
	Total (Average)	108	7.17												99.6	0.43												95.6																	
	Under \$12	14	7.50												104.2	0.74												164.4																	
\$100 & over	\$12 to \$16	31	7.58												105.3	0.55												122.2																	
	\$16 to \$24	46	6.80												94.4	0.36												80.0																	
	\$24 to \$32	12	6.94												96.4	0.26												57.6																	
	\$32 & over	5	8.21												114.0	0.23												51.1																	
	Total (Average)	42	7.87												109.3	0.39												86.7																	
\$150 & over	Under \$12	3	9.93												157.9	0.95												211.1																	
	\$12 to \$16	6	9.58												130.3	0.70												155.6																	
	\$16 to \$24	17	9.21												127.9	0.47												104.4																	
	\$24 to \$32	10	5.95												82.6	0.21												46.7																	
	\$32 & over	7	4.43												61.5	0.12												26.7																	
Average \$7.20																							Average \$0.45																						

time sales-person decreased between 1914 and 1918, and 1918 and 1919. Tables 162 to 165, inclusive, show that this condition held for each group of stores when classified by size. Moreover, decreases from year to year also hold for each group of stores when the amounts are measured in terms of

sales for each \$1,000 sold per full-time sales-person. The direction of the change from year to year, therefore, seems to be uniform.

For this group of stores in each year, as for the 269 in 1919, the amounts of wages and salaries increase as the stores increase in size.

However, for each group, when the stores are classified by size, the amounts of wages and salaries per \$100 of total net sales and per \$100 of total net sales for each \$1,000 sold per full-time sales-person decrease as the amounts sold per full-time sales-

person increase. To this general rule there are some exceptions. Had the records of even a larger number of stores been analyzed, some exceptions would have been expected. For this group, they are so few that they do not invalidate the conclusion that an

TABLE 163

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Wages and Salaries per \$100 of Total Net Sales													Wages and Salaries per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person														
			Amount	Per Cent.												Actual	Amount	Per Cent.												Actual
				Graphic														Graphic												
				0	20	40	60	80	100	120	140	160	0	20	40			60	80	100	120	140	160	180						
Total (Average)	Total (Average)	146	\$6.97													100.0	\$0.34													100.0
	Under \$12	15	6.64													85.8	0.60													176.5
	\$12 to \$16	30	7.70													110.5	0.56													161.6
	\$16 to \$24	61	8.20													117.6	0.44													129.4
	\$24 to \$32	21	6.72													82.1	0.21													61.6
	\$32 & over	19	4.92													70.6	0.13													56.2
Under \$40	Total (Average)	14	4.50													64.6	0.29													85.3
	Under \$12	5	5.14													75.7	0.52													152.9
	\$12 to \$16	1	6.07													87.1	0.48													132.4
	\$16 to \$24	4	4.47													64.1	0.23													67.6
	\$24 to \$32	2	3.77													54.1	0.14													41.2
	\$32 & over	2	5.35													48.1	0.10													29.4
\$40 to \$50	Total (Average)	54	5.39													77.3	0.33													97.1
	Under \$12	8	7.60													109.0	0.79													232.4
	\$12 to \$16	18	6.33													90.6	0.45													132.4
	\$16 to \$24	18	4.76													68.3	0.26													76.5
	\$24 to \$32	4	4.37													62.7	0.16													47.1
	\$32 & over	6	2.55													36.6	0.06													17.6
\$50 to \$100	Total (Average)	54	7.06													101.3	0.39													114.7
	Under \$12	2	2.53													36.3	0.25													73.5
	\$12 to \$16	11	6.91													127.6	0.64													186.2
	\$16 to \$24	30	6.79													97.4	0.37													106.8
	\$24 to \$32	7	6.36													76.9	0.20													56.8
	\$32 & over	4	9.45													135.6	0.26													76.5
\$100 & over	Total (Average)	24	7.49													107.5	0.51													91.2
	Under \$12	-	-													-	-													-
	\$12 to \$16	-	-													-	-													-
	\$16 to \$24	9	10.45													149.9	0.55													161.6
	\$24 to \$32	8	5.94													85.2	0.21													61.8
	\$32 & over	7	4.63													63.6	0.12													35.3

Average \$6.97

Average \$0.54

^a Full length not shown

TABLE 164

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND
BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1918

Classified Total Net Sales (in \$000's)	Amount of Sales per Full-time Sales-person (in \$000's)	Number of Stores	Wages and Salaries per \$100 of Total Net Sales										Wages and Salaries per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Actual	Graphic										
				0	20	40	60	80	100	120	140	160	180	0		20	40	60	80	100	120	140	160	180	Actual	
Over \$100 (Average)	Total (Average)	146	\$7.38											100.0	\$0.47											100.0
	Under \$12	50	7.27											98.5	0.72											153.2
	\$12 to \$16	42	7.81											105.8	0.58											123.4
	\$16 to \$24	37	7.33											100.1	0.37											78.7
	\$24 to \$32	14	6.80											92.1	0.25											33.2
\$32 & over	3	3.42											47.3	0.09											19.1	
Under \$100 (Average)	Total (Average)	40	5.84											79.1	0.42											104.3
	Under \$12	21	7.55											102.3	0.67											185.1
	\$12 to \$16	7	5.17											70.1	0.38											80.9
	\$16 to \$24	3	4.60											62.3	0.24											51.1
	\$24 to \$32	6	3.27											44.3	0.12											25.5
\$32 & over	2	1.30											17.6	0.03											6.4	
\$100 to \$200 (Average)	Total (Average)	61	6.57											89.0	0.50											106.4
	Under \$12	24	7.44											100.8	0.70											148.9
	\$12 to \$16	20	5.64											90.0	0.42											104.3
	\$16 to \$24	15	5.64											75.4	0.31											66.0
	\$24 to \$32	2	2.07											28.0	0.07											14.9
\$32 & over	-	-											-	-											-	
\$200 to \$500 (Average)	Total (Average)	32	7.17											97.2	0.42											89.4
	Under \$12	5	6.41											86.9	0.57											121.3
	\$12 to \$16	11	6.43											87.1	0.46											97.9
	\$16 to \$24	10	7.55											102.3	0.39											80.9
	\$24 to \$32	5	9.05											122.6	0.34											72.3
\$32 & over	1	4.51											61.1	0.12											25.5	
\$500 & over (Average)	Total (Average)	13	8.37											113.4	0.47											100.0
	Under \$12	-	-											-	-											-
	\$12 to \$16	4	10.50											142.3	0.83											176.6
	\$16 to \$24	7	7.96											106.5	0.39											83.0
	\$24 to \$32	2	6.08											82.4	0.22											46.8
\$32 & over	-	-											-	-											-	
			Average \$7.38										Average \$0.47													

effective method of reducing the amounts of wages and salaries per \$100 of total net sales is to increase the amount sold per full-time sales-person.

The amounts of wages and salaries paid to salesmen may also be expressed in terms of total selling expense. This is done in detail in

Table 166 for the 269 stores classified by size and by the amounts sold per full-time sales-person. For 146 stores, in 1919, as shown in Table 157, it cost in wages and salaries \$67.05 out of every \$100 of selling expense. For 269 stores, as shown in Table 166, the corresponding cost for the same year was \$65.67. Inasmuch as wages and

salaries become a proportionately smaller percentage of selling expense as the stores increase in size, the actual amounts for two groups of stores depend on the proportions in

which stores of different size are included. The amounts in 1919 for 269 stores of different size are shown in Table 166. Briefly, they are as follows: For the stores with sales under

TABLE 165

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1914

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Wages and Salaries per \$100 of Total Net Sales										Wages and Salaries per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	0	20		40	60	80	100	120	140	160	Actual				
Total (Average)	Total (Average)	146	\$7.45											100.0	\$0.66											100.0
	Under \$12	86	8.51											114.2	0.95											143.9
	\$12 to \$16	35	8.72											90.2	0.48											72.7
	\$16 to \$24	20	5.57											74.8	0.30											45.5
	\$24 to \$32	4	8.17											109.7	0.30											45.5
	\$32 & over	1	1.75											23.6	0.05											7.6
Under \$40	Total (Average)	71	6.41											86.0	0.71											107.6
	Under \$12	45	7.59											101.9	1.06											160.6
	\$12 to \$16	15	4.53											60.8	0.33											50.0
	\$16 to \$24	8	4.42											59.3	0.24											36.4
	\$24 to \$32	3	3.69											49.5	0.14											21.2
	\$32 & over	-	-											-	-											-
\$40 to \$50	Total (Average)	48	7.52											100.9	0.67											101.5
	Under \$12	31	8.23											110.5	0.85											129.8
	\$12 to \$16	10	6.55											88.1	0.43											72.7
	\$16 to \$24	5	4.84											65.0	0.28											42.4
	\$24 to \$32	1	14.60											196.0*	0.51											77.3
	\$32 & over	1	1.75											23.6	0.05											7.6
\$50 to \$100	Total (Average)	22	7.45											100.0	0.58											87.9
	Under \$12	7	9.09											121.9	0.94											142.4
	\$12 to \$16	9	7.41											99.5	0.54											81.8
	\$16 to \$24	6	5.56											74.6	0.29											45.9
	\$24 to \$32	-	-											-	-											-
	\$32 & over	-	-											-	-											-
\$100 & over	Total (Average)	5	8.45											113.6	0.65											100.0
	Under \$12	3	9.93											133.3	0.95											143.9
	\$12 to \$16	1	7.29											97.9	0.49											74.2
	\$16 to \$24	1	7.53											101.1	0.42											63.6
	\$24 to \$32	-	-											-	-											-
	\$32 & over	-	-											-	-											-

Average \$7.45

Average \$0.66

*Full length not shown

\$40,000, the average amount is \$71.29; for those with sales of \$40,000 to \$80,000, it is \$71.93; for those with sales of \$80,000 to \$180,000, it is \$66.95; and for those with sales of \$180,000 and over, \$63.07. That is, the amounts over the entire range of sizes decrease, although the average for the stores with sales of \$40,000 to \$80,000 is slightly larger than that for the stores with sales under \$40,000. Moreover, the amounts for stores having a given amount sold per full-time sales-person tend to decrease as the stores increase in size, although from group to group the tendency is somewhat irregular.

When the stores are classified by size and further by the sales per full-time sales-person, the proportions which wages and salaries constitute of each \$100 of selling expense decrease as the amounts sold per full-time sales-person increase. This condition characterizes the 269 stores in 1919, shown in Table 166, as it did the smaller number for the same year shown in Table 157.

The amounts of wages and salaries may also be expressed per \$100 of selling expense per stock turnover. This is done in the columns of Table 166 having this caption. For the entire group of stores, irrespective of size, the average amount in 1919 was \$29.80. For the stores with sales under \$40,000, it was \$47.53; for those with sales of \$40,000 to \$80,000 it was \$39.96; for those with sales of \$80,000 to \$180,000 it was \$35.24; and for those with sales of \$180,000 and over, \$23.36. That is, the amounts

decrease as the stores increase in size, the percentages of difference being somewhat larger when the amounts are expressed in this form than when they are expressed in selling expense alone. Moreover, the amounts of wages and salaries per \$100 of selling expense per turnover decrease as the amounts sold per full-time sales-person increase. This condition holds for the stores treated as a whole and when classified by size. There are a few exceptions to this general rule but these are inadequate to alter the conclusion. An effective way of reducing wages and salaries measured in terms of selling expense per turnover is to increase the amounts sold per full-time sales-person. The latter, of course, may result from increasing the sales of a given force or from reducing the size of the selling force.

Table 167 shows the amounts of wages and salaries per \$100 of selling expense for each \$1,000 sold per full-time sales-person. The stores included are the same as those in Table 166. For all the stores, irrespective of size or of the amounts sold per full-time sales-person, the average amount of wages and salaries per \$100 of selling expense for each \$1,000 sold per full-time sales-person was \$3.24. When the stores are classified in the four size-groups customarily used, the amounts on the whole decrease as the stores increase in size. For those with sales under \$40,000 the amount was \$4.20, for those with sales of \$180,000 and over, \$2.73. Moreover, when the stores are classified by the amounts sold per full-time sales-

TABLE 166

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER STOCK TURN-OVER, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Wages and Salaries per \$100 of Selling Expense					Wages and Salaries per \$100 of Selling Expense per Stock Turnover				
			Amount	Per Cent.				Amount	Per Cent.			Actual
				Graphic	0	20	40	60	80	100	120	
Total (Average)	Total (Average)	269	\$65.67									100.0
	Under \$12	30	61.29									93.5
	\$12 to \$16	56	74.53									113.7
	\$16 to \$24	103	69.55									106.1
	\$24 to \$32	44	61.50									93.8
	\$32 & over	36	55.56									81.7
Under \$40	Total (Average)	31	71.29									108.7
	Under \$12	9	75.61									115.3
	\$12 to \$16	4	75.52									116.7
	\$16 to \$24	7	68.85									105.0
	\$24 to \$32	7	76.56									116.8
	\$32 & over	4	64.69									83.4
\$40 to \$80	Total (Average)	103	71.93									109.7
	Under \$12	16	73.52									112.1
	\$12 to \$16	34	75.04									111.4
	\$16 to \$24	51	71.26									108.7
	\$24 to \$32	9	76.43									116.6
	\$32 & over	13	59.40									90.6
\$80 to \$150	Total (Average)	92	66.95									102.1
	Under \$12	4	56.51									86.2
	\$12 to \$16	13	75.72									115.5
	\$16 to \$24	50	67.50									102.6
	\$24 to \$32	14	64.01									97.6
	\$32 & over	9	60.67									92.5
\$150 & over	Total (Average)	43	63.07									96.2
	Under \$12	1	39.09									59.6
	\$12 to \$16	3	74.73									114.0
	\$16 to \$24	15	70.93									108.2
	\$24 to \$32	14	59.33									90.6
	\$32 & over	10	50.15									76.5
			Average \$65.67					Average \$29.80				

person, the wages and salaries per \$100 of selling expense for each \$1,000 sold per full-time sales-person decrease as the salesmen's activities increase. This is to be expected in view of the method by which the stores are

classified. The only virtue of expressing the amounts in this form is to place them on a uniform or \$1,000 basis. By doing this, the different store-groups become directly comparable.

The meaning of Table 167 may be made clearer if the amounts of wages and salaries for a single group of stores are studied. For stores having sales of \$40,000 to \$80,000, it cost \$7.31 in wages and salaries per \$100

of selling expense for each \$1,000 sold per person when a salesman sold less than \$12,000 per year. It cost but \$1.40 in wages and salaries similarly measured when salesmen sold \$32,000 and over. Prudence and business

TABLE 167

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Salesperson (in 000's)	Number of Stores	Wages and Salaries per \$100 of Selling Expense										Wages and Salaries per \$100 of Selling Expense per \$1,000 of Sales per Full-time Salesperson													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120	140	160	180	200				
Total (Average)	Total (Average)	269	\$65.57											100.0	\$3.24											100.0
	Under \$12	50	61.29											93.5	5.01											125.5
	\$12 to \$16	86	74.53											113.7	5.29											163.0
	\$16 to \$24	103	69.58											106.1	3.65											112.7
	\$24 to \$32	44	61.50											93.8	2.94											89.1
	\$32 & over	36	53.56											81.7	1.50											40.1
Under \$40	Total (Average)	31	71.29											109.7	4.20											129.6
	Under \$12	9	76.61											133.5	7.55											233.0*
	\$12 to \$16	4	76.52											116.7	5.26											162.5
	\$16 to \$24	7	66.85											105.0	3.47											107.1
	\$24 to \$32	7	76.56											116.6	9.67											82.4
	\$32 & over	4	54.69											83.4	1.56											46.1
\$40 to \$80	Total (Average)	103	71.93											109.7	4.33											133.6
	Under \$12	16	73.52											112.1	7.31											225.6*
	\$12 to \$16	34	73.04											111.4	5.05											156.9
	\$16 to \$24	31	71.96											108.7	3.77											116.4
	\$24 to \$32	9	76.43											116.6	9.63											87.3
	\$32 & over	13	59.40											90.5	1.40											43.2
\$80 to \$100	Total (Average)	92	66.95											102.1	3.46											107.4
	Under \$12	4	66.31											86.2	5.44											167.9
	\$12 to \$16	15	73.72											115.6	5.60											172.8
	\$16 to \$24	50	67.30											165.6	3.54											109.3
	\$24 to \$32	14	64.01											97.6	2.35											72.5
	\$32 & over	9	60.67											90.5	1.57											46.5
\$100 & over	Total (Average)	43	63.07											99.3	2.73											84.3
	Under \$12	1	39.09											69.6	3.74											115.4
	\$12 to \$16	3	74.73											114.0	5.20											160.6
	\$16 to \$24	15	70.93											100.2	3.71											114.5
	\$24 to \$32	14	59.33											90.5	2.15											66.4
	\$32 & over	10	50.13											76.5	1.19											36.7

Average \$65.57

Average \$3.24

* Full length not shown

sense immediately suggest the desirability of stimulating sales as a method of reducing the percentage of selling expense reflected in wages and salaries.

The data in Table 167, however, refer alone to the year 1919. In many particulars this is an exceptional year, and it has been thought of interest to include data similarly classified for

TABLE 168

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Store- years	Wages and Salaries per \$100 of Selling Expense						Wages and Salaries per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person														
			Amount	Per Cent.						Amount	Per Cent.									Actual			
				Graphic							Graphic												
				0	20	40	60	80	100	120		0	20	40	60	80	100	120	140	160	180	200	
Total (Average)	Total (Average)	438	\$66.68							100.0	\$4.14										100.0		
	Under \$12	151	70.25							105.0	7.49										160.0		
	\$12 to \$16	107	66.04							101.7	4.96										118.6		
	\$16 to \$24	118	68.55							102.5	3.58										86.5		
	\$24 to \$32	39	59.82							89.4	2.18										52.7		
	\$32 & over	23	57.41							85.8	1.55										37.4		
Under \$40	Total (Average)	125	69.83							104.4	6.72										162.3		
	Under \$12	71	72.68							109.0	9.38										226.0*		
	\$12 to \$16	23	69.70							104.2	3.09										122.9		
	\$16 to \$24	17	63.94							95.6	3.36										81.2		
	\$24 to \$32	10	56.38							84.3	2.05										49.5		
	\$32 & over	4	47.12							70.5	1.27										30.7		
\$40 to \$80	Total (Average)	163	70.15							104.9	5.24										126.6		
	Under \$12	63	72.53							108.4	7.25										175.1		
	\$12 to \$16	49	68.95							103.1	4.99										120.5		
	\$16 to \$24	38	67.07							100.3	3.66										88.4		
	\$24 to \$32	7	73.46							109.9	2.68										64.7		
	\$32 & over	7	66.65							90.7	1.43										34.6		
\$80 to \$180	Total (Average)	108	66.96							100.1	4.05										97.8		
	Under \$12	14	64.44							96.4	6.35										153.4		
	\$12 to \$16	31	66.16							101.9	4.91										112.6		
	\$16 to \$24	46	66.26							99.1	3.49										84.3		
	\$24 to \$32	12	67.49							100.9	2.53										61.1		
	\$32 & over	5	72.16							107.9	1.99										46.1		
\$180 & over	Total (Average)	42	66.09							97.3	3.21										77.5		
	Under \$12	3	67.32							100.7	6.43										155.3		
	\$12 to \$16	5	66.84							99.9	4.98										120.3		
	\$16 to \$24	17	70.18							104.9	3.59										86.7		
	\$24 to \$32	10	56.47							84.3	2.03										49.0		
	\$32 & over	7	52.49							78.5	1.44										34.8		

Average \$66.68

Average \$4.14

*Full length not shown

TABLE 169

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND
BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Salesperson (in 000's)	Number of Stores	Wages and Salaries per \$100 of Selling Expense										Wages and Salaries per \$100 of Selling Expense per \$1,000 of Sales per Full-time Salesperson																	
			Amount	Per Cent.										Amount	Per Cent.															
				Graphic											Graphic															
			Amount	0	20	40	60	80	100	120	Actual		0	20	40	60	80	100	120	140	160	180	200	Actual						
Total (Average)	Total (Average)	146	\$67.05											100.0	\$3.28															100.0
	Under \$12	15	63.59											94.5	6.51															198.5
	\$12 to \$16	30	76.04											113.4	5.43															165.5
	\$16 to \$24	61	72.34											107.9	3.84															117.1
	\$24 to \$32	21	57.24											85.4	2.08															65.4
	\$32 & over	19	67.16											85.2	1.54															47.0
Under \$40	Total (Average)	14	66.52											99.2	4.22															128.7
	Under \$12	5	75.53											109.7	7.48															228.0*
	\$12 to \$16	1	75.23											112.2	5.62															171.3
	\$16 to \$24	4	63.55											94.8	3.20															97.6
	\$24 to \$32	2	79.68											118.6	2.99															91.2
	\$32 & over	2	47.13											70.3	1.36															41.2
\$40 to \$50	Total (Average)	54	71.97											107.3	4.41															134.5
	Under \$12	6	75.15											112.1	7.83															238.7*
	\$12 to \$16	18	72.82											106.6	5.14															156.7
	\$16 to \$24	18	71.31											106.4	3.83															116.6
	\$24 to \$32	4	71.61											106.6	2.67															61.4
	\$32 & over	6	80.49											90.2	1.40															42.7
\$50 to \$100	Total (Average)	54	69.26											105.3	3.73															115.2
	Under \$12	2	28.20											42.1	2.82															86.0
	\$12 to \$16	11	78.15											116.6	5.63															171.6
	\$16 to \$24	30	80.26											101.9	3.67															111.9
	\$24 to \$32	7	65.64											94.9	2.39															72.9
	\$32 & over	4	75.37											109.4	2.02															61.6
\$100 & over	Total (Average)	24	64.80											96.8	2.68															91.1
	Under \$12	-	-											-	-															-
	\$12 to \$16	-	-											-	-															-
	\$16 to \$24	6	75.19											112.1	3.96															120.4
	\$24 to \$32	8	55.32											62.5	1.99															60.7
	\$32 & over	7	52.49											76.3	1.44															43.9

Average \$67.05

Average \$3.28

*Full length not shown

146 stores for the years 1919, 1918, and 1914, individually and combined. This is done in Tables 168 to 171, inclusive.

The data in Table 168, for the three years combined, show the same ten-

dencies found in Table 167; i. e., for the proportions of selling expense attributable to wages and salaries, measured in either the simple or the complex unit, to decrease as sales per full-time sales-person increase and

also as the size of the stores increases. These relations hold in a general way for each of the years. When the detail for the separate years are compared, for stores of a given size and with a given amount of sales per full-time sales-person, the amounts of

wages and salaries per \$100 of selling expense for a \$1,000 of sales per full-time sales-person tend, in a general way, to decrease from year to year.

Tables 158 to 171, inclusive, and the discussion concerning them, may be summarized as follows: First, for

TABLE 170

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1918

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Wages and Salaries per \$100 of Selling Expense										Wages and Salaries per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person																				
			Amount	Per Cent.										Amount	Per Cent.																		
				Graphic											Graphic																		
				0	20	40	60	80	100	120	140	160	180		200	220	Actual																
Total (Average)	Total (Average)	146	\$67.47											100.0	\$4.32																		100.0
	Under \$12	50	71.00											105.2	6.99																		161.8
	\$12 to \$16	42	69.35											102.8	5.17																		119.7
	\$16 to \$24	37	65.01											96.4	3.27																		75.7
	\$24 to \$32	14	67.24											99.7	2.46																		56.9
	\$32 & over	3	62.50											92.6	1.67																		36.7
Under \$40	Total (Average)	40	70.83											105.0	5.96																		136.4
	Under \$12	21	76.27											113.0	8.75																		202.5
	\$12 to \$16	7	72.09											106.8	5.55																		123.8
	\$16 to \$24	5	61.09											90.5	3.24																		75.0
	\$24 to \$32	5	50.55											74.9	1.79																		41.4
	\$32 & over	2	47.10											69.8	1.18																		27.5
\$40 to \$80	Total (Average)	61	70.23											104.1	5.33																		123.4
	Under \$12	24	71.05											105.5	6.70																		155.1
	\$12 to \$16	20	69.71											103.5	5.14																		119.0
	\$16 to \$24	15	69.99											107.7	3.84																		80.9
	\$24 to \$32	2	69.61											88.4	2.10																		40.6
	\$32 & over	-	-											-	-																		-
\$80 to \$120	Total (Average)	52	65.45											97.0	3.84																		88.9
	Under \$12	5	64.06											94.9	5.71																		132.2
	\$12 to \$16	11	62.92											93.5	4.46																		105.2
	\$16 to \$24	10	65.20											96.6	3.25																		75.2
	\$24 to \$32	5	70.88											105.1	2.64																		61.1
	\$32 & over	1	65.40											96.9	1.80																		41.7
\$120 & over	Total (Average)	15	66.88											99.1	3.75																		86.5
	Under \$12	-	-											-	-																		-
	\$12 to \$16	4	72.92											108.1	5.74																		132.9
	\$16 to \$24	7	64.26											95.2	3.18																		73.6
	\$24 to \$32	2	65.31											96.8	2.57																		54.9
	\$32 & over	-	-											-	-																		-

Average \$67.47

Average \$4.32

stores of a given size, the amounts of wages and salaries, measured in any of the units, decrease as the sales per full-time sales-person increase. Second, for stores with a given amount of sales per full-time sales-person, the amounts of wages and salaries per \$100 of total net sales and per \$100 of total net sales per stock turnover increase, while per \$100 of total net sales per \$1,000 of sales per full-time sales-person, they decrease as stores increase in size. Third, for stores with a given amount of sales per full-time sales-person, the proportions of selling expense chargeable to wages and salaries, measured either in the simple or in the complex units, decrease as the size of the stores increases.

C.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size and by Size of City in Which Located, 1919.*

The discussion of wages and salaries in relation to sales in Volume II† of the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing* showed that the entire wage bill in terms of sales was relatively lower for stores in small than for those in large cities. In the following section the effect of location on wages and salaries paid to salesmen is studied for a group of stores, having in 1919 sales between \$40,000

and \$80,000 and located in different sized cities. This part of the discussion closely follows that on pages 112 to 118.

In Table 172, 103 stores with annual sales of \$40,000 to \$80,000 are classified according to location and the amounts sold per full-time sales-person. The average amount of wages and salaries per \$100 of total net sales for the 89 stores in the small cities in 1919 was \$5.34; for the 14 stores located in the large cities it was \$5.76. That is, it cost on the average \$0.42 more to sell \$100 worth of goods for the stores in the large than for stores of similar size in the small cities. This advantage, however, does not always hold for the stores with different location, but having the same amount sold per full-time sales-person. To test satisfactorily this latter condition would require more store records for stores in the large cities than are available. Within each city-group, however, the amounts of wages and salaries per \$100 of total net sales decrease, with minor exceptions, as the amounts sold per full-time sales-person increase, the continuity of the decrease being unbroken for the stores in the small cities and interrupted, in spite of the few stores considered, at only two places for the stores in the large cities.

Table 172 also supplies the data for a more refined analysis of the amounts of wages and salaries. In the right-hand columns of the table, the amounts per \$100 of total net sales per stock turnover are shown

* Population figures are for 1920.

† Pages 146 to 156, inclusive.

TABLE 171

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND
BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1914

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Wages and Salaries per \$100 of Selling Expense						Wages and Salaries per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person												
			Amount	Per Cent.					Actual	Amount	Per Cent.					Actual					
				0	20	40	60	80			100	120	0	20	40		60	80	100	120	140
Total (Average)	Total (Average)	146	\$65.59						100.0	\$5.78						100.0					
	Under \$12	88	70.77						107.9	7.89						136.5					
	\$12 to \$16	35	60.07						91.6	4.28						74.0					
	\$16 to \$24	20	56.60						86.6	3.05						52.8					
	\$24 to \$32	4	71.68						109.3	2.60						45.0					
	\$32 & over	1	61.92						94.4	1.63						26.2					
Under \$40	Total (Average)	71	69.82						106.4	7.76						134.7					
	Under \$12	45	71.82						108.6	9.91						171.5					
	\$12 to \$16	15	67.89						105.5	4.91						84.9					
	\$16 to \$24	8	66.88						102.0	3.60						62.5					
	\$24 to \$32	3	54.68						85.4	2.03						35.1					
	\$32 & over	-	-						-	-						-					
\$40 to \$80	Total (Average)	48	66.63						104.6	3.44						94.1					
	Under \$12	31	73.09						111.4	7.57						151.0					
	\$12 to \$16	10	62.07						94.6	4.52						78.2					
	\$16 to \$24	5	48.75						74.3	2.77						47.9					
	\$24 to \$32	1	80.80						125.2	2.83						49.0					
	\$32 & over	1	61.92						94.4	1.63						28.2					
\$80 to \$120	Total (Average)	22	64.03						97.6	4.96						85.6					
	Under \$12	7	69.75						106.3	7.19						124.4					
	\$12 to \$16	9	61.90						94.4	4.55						78.7					
	\$16 to \$24	6	58.08						88.5	3.02						52.2					
	\$24 to \$32	-	-						-	-						-					
	\$32 & over	-	-						-	-						-					
\$120 & over	Total (Average)	5	60.77						92.7	4.73						81.6					
	Under \$12	3	67.52						102.6	6.43						111.2					
	\$12 to \$16	1	54.67						85.4	3.64						65.0					
	\$16 to \$24	1	57.42						87.5	3.20						55.4					
	\$24 to \$32	-	-						-	-						-					
	\$32 & over	-	-						-	-						-					

Average \$65.59

Average \$5.78

for stores with annual sales from \$40,000 to \$80,000 and with different amounts sold per full-time sales-person. When the amounts are expressed on a per turn basis, and when the stores are considered as a group,

those in the large cities spend less than do those in the small cities. When they are classified by the amounts sold per full-time sales-person, however, this advantage does not hold in each individual instance,

TABLE 172

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER STOCK TURN-OVER, FOR STORES WITH SALES OF \$40,000 TO \$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Size of City (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Wages and Salaries per \$100 of Total Net Sales												Wages and Salaries per \$100 of Total Net Sales per Stock Turnover																				
			Amount	Per Cent.											Amount	Per Cent.											Actual								
				Graphic												Graphic																			
				0	20	40	60	80	100	120	140	160	0	20		40	60	80	100	120	140	160													
Total (Average)	Total (Average)	103	\$5.40												100.0	\$3.00												100.0							
	Under \$12	16	6.65												123.1	4.43												147.7							
	\$12 to \$16	34	6.29												116.5	3.70												123.3							
	\$16 to \$24	31	4.69												86.9	2.61												87.0							
	\$24 to \$32	9	5.49												101.7	2.61												87.0							
	\$32 & over	13	3.00												55.6	1.58												52.7							
Under 40	Total (Average)	89	5.34												99.9	3.14												104.7							
	Under \$12	14	6.92												128.1	4.61												152.7							
	\$12 to \$16	29	6.31												116.9	3.71												123.7							
	\$16 to \$24	29	4.78												80.3	2.81												93.7							
	\$24 to \$32	6	4.08												75.6	2.27												75.7							
	\$32 & over	11	2.92												54.1	1.46												48.7							
40 and over	Total (Average)	14	5.76												106.7	2.74												91.3							
	Under \$12	2	4.57												84.6	2.06												95.3							
	\$12 to \$16	5	6.24												115.6	3.12												104.0							
	\$16 to \$24	2	3.63												67.2	1.10												36.7							
	\$24 to \$32	3	8.03												149.7	3.21												107.0							
	\$32 & over	2	5.56												65.9	2.23												74.3							
Average \$5.40																		Average \$3.00																	

the number of stores being too few to reveal characteristic amounts. Within each city-group, however, the amounts of wages and salaries, when measured in a unit of sales per stock turnover, decrease as the amounts sold per full-time sales-person increase. Generally speaking, the greater rapidity of turnover for the stores in the large cities more than compensates for the disadvantage under which they operate so far as payments for wages and salaries in relation to sales are concerned.

It will be remembered that stores of not widely different size are in-

volved in this comparison. The practical significance of the conclusions seems to be that merchants, doing a given amount of business, have lower amounts of wages and salaries in terms of sales in the small than in the large cities, but that they have higher expenses of the same type when measured in terms of sales per turnover.

Table 173 is similar to Table 172. The same stores are included and the method of grouping them is identical. The only additional feature of Table 173 is that expenses attributable to wages and salaries are expressed in

terms of sales for each \$1,000 sold per full-time sales-person. When the amounts are shown in this form, the stores in the small cities, when treated as a whole, retain their advantage. When those having the same amounts of sales per full-time sales-person, but differently located, are compared, two of the groups in the small cities have smaller amounts than those in the large cities, and three have larger amounts.

The effect of location and amounts of goods sold per full-time sales-person on wages and salaries may also be measured by expressing wages and salaries in terms, first, of selling ex-

pense; and, second, of selling expense per stock turnover. This is done in Table 174 by using the same stores as those studied in Tables 172 and 173. Out of every \$100 of selling expense, wages and salaries constitute \$72.69 for the stores in the small cities and \$68.09 for the stores in the large cities. Moreover, with the exception of one case, the amounts stand in this order for stores with different locations, but with equal amounts sold per full-time sales-person. Within each city-group there is little or no tendency for the amounts to increase or decrease as the amounts sold per full-time sales-person increase. When,

TABLE 173

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR STORES WITH SALES OF \$40,000 TO \$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919






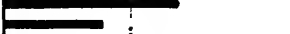




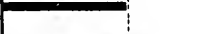









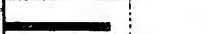


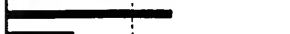






Size of City (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Wages and Salaries per \$100 of Total Net Sales						Wages and Salaries per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person																		
			Amount	Per Cent.					Amount	Per Cent.					Actual												
				Graphic						Graphic																	
			Amount	0	20	40	60	80	100	120	140	160	Amount	0	20	40	60	80	100	120	140	160	180	200	220	Actual	
Total (Average)	Total (Average)	103	\$5.40											100.0	\$0.32											100.0	
	Under \$12	16	6.65											123.1	0.66											206.3	
	\$12 to \$16	34	6.29											116.6	0.44											137.5	
	\$16 to \$24	31	4.69											86.9	0.25											78.1	
	\$24 to \$32	9	5.49											101.7	0.20											62.5	
	\$32 & over	13	3.00											55.6	0.07											21.9	
Under 40	Total (Average)	89	5.34											96.9	0.32											100.0	
	Under \$12	14	6.92											128.1	0.69											212.5	
	\$12 to \$16	29	6.31											116.9	0.44											137.5	
	\$16 to \$24	29	4.78											88.5	0.26											81.3	
	\$24 to \$32	6	4.08											75.6	0.15											46.9	
	\$32 & over	11	2.92											54.1	0.07											21.9	
40 and over	Total (Average)	14	5.76											106.7	0.33											103.1	
	Under \$12	2	4.57											84.6	0.48											150.0	
	\$12 to \$16	5	6.24											115.6	0.42											131.3	
	\$16 to \$24	2	3.65											67.2	0.17											53.1	
	\$24 to \$32	3	8.02											149.7	0.30											93.8	
	\$32 & over	2	3.56											65.9	0.08											25.0	
Average \$5.40																											Average \$0.32

TABLE 174

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER STOCK TURN-OVER, FOR STORES WITH SALES FROM \$40,000 TO \$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Size of City (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Wages and Salaries per \$100 of Selling Expense						Wages and Salaries per \$100 of Selling Expense per Stock Turnover											
			Amount	Per Cent.					Amount	Per Cent.										
				Graphic						Graphic										
				0	20	40	60	80	100	120		0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	103	\$71.93						100.0	\$39.96										100.0
	Under \$12	16	73.52						102.2	49.01										122.6
	\$12 to \$16	34	73.04						101.5	42.96										107.5
	\$16 to \$24	31	71.26						99.1	39.59										99.1
	\$24 to \$32	9	76.43						106.3	36.40										91.1
	\$32 & over	13	59.40						82.6	31.26										78.2
Under 40	Total (Average)	89	72.59						101.1	42.76										107.0
	Under \$12	14	73.56						102.3	49.04										122.7
	\$12 to \$16	29	74.34						103.4	45.73										109.4
	\$16 to \$24	29	73.37						102.0	43.16										108.0
	\$24 to \$32	6	72.59						100.9	40.33										100.9
	\$32 & over	11	59.83						85.2	29.92										74.9
40 and over	Total (Average)	14	68.09						94.7	32.42										81.1
	Under \$12	2	73.03						101.6	45.64										114.2
	\$12 to \$16	5	66.86						93.0	33.43										83.7
	\$16 to \$24	2	49.97						69.5	15.14										37.9
	\$24 to \$32	3	80.33						111.7	32.13										80.4
	\$32 & over	2	57.27						79.6	35.79										89.6

Average \$71.93

Average \$39.96

Average \$71.93

Average \$39.96

however, the amounts of wages and salaries per \$100 of selling expense are shown per stock turnover, rather different conditions follow. The average amount expressed in this form for the stores in the small cities is \$42.76. For those in the large cities it is \$32.42. Moreover, in each group of stores, classified by the amounts of sales per full-time sales-person, the amounts are larger with one exception for the stores in the small than for those in the large cities. In addition, the differences between the

amounts in the large cities and those in the small cities are more marked when amounts of wages and salaries are expressed in terms of selling expense per stock turnover, than when shown in terms of selling expense alone.

Within each city-group, the amounts of wages and salaries per \$100 of selling expense per stock turnover decrease as the amounts per full-time sales-person increase. For the stores in the small cities there is no exception to this rule and for those

in the large cities, even with the few stores considered, only two exceptions. The possibilities of reducing wages and salaries as a part of selling expense for each stock turnover by stimulating sales may be shown concretely if the group of 89 stores located in small cities is used for illustrative purposes. For the stores in which salesmen sold less than \$12,-000, the amount of wages and salaries per \$100 of selling expense for each stock turnover was \$49.04, while for the stores in which salesmen sold \$32,-000 and over the corresponding

amount was \$29.92. Between these limits, as amounts sold per full-time sales-person increase, a saving is shown for each group of stores. Similar, but less certain advantages through stimulating sales may also be observed by considering the stores in the large cities.

Still another method of stating the amounts of wages and salaries for stores classified by location and by amounts sold per full-time sales-person may be used to advantage. In Table 175 the amounts of wages and salaries per \$100 of selling expense

TABLE 175

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR STORES WITH SALES FROM \$40,000 TO \$80,000, CLASSIFIED BY SIZE OF CITY AND AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Size of City (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Wages and Salaries per \$100 of Selling Expense										Wages and Salaries per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person										
			Amount	Per Cent.								Actual	Amount	Per Cent.								Actual	
				Graphic										Graphic									
				0	20	40	60	80	100	120			0	20	40	60	80	100	120	140	160	180	
Total (Average)	Total (Average)	103	\$71.93									100.0	\$4.33									100.0	
	Under \$12	16	73.52									102.2	7.31									169.8	
	\$12 to \$16	34	73.04									101.5	6.05									116.6	
	\$16 to \$24	31	71.26									99.1	3.77									87.1	
	\$24 to \$32	9	76.43									106.3	2.83									65.4	
	\$32 & over	13	59.40									82.6	1.40									32.2	
Under 40	Total (Average)	89	72.69									101.1	4.42									102.1	
	Under \$12	14	73.56									102.3	7.26									167.7	
	\$12 to \$16	29	74.34									103.4	5.16									119.2	
	\$16 to \$24	29	73.37									102.0	3.92									90.3	
	\$24 to \$32	6	72.59									100.9	2.66									61.4	
	\$32 & over	11	59.83									83.2	1.42									32.8	
50 and over	Total (Average)	14	68.09									94.7	3.86									89.1	
	Under \$12	2	73.03									101.5	7.59									177.6	
	\$12 to \$16	5	66.88									93.0	4.55									105.1	
	\$16 to \$24	2	49.97									69.5	2.38									55.0	
	\$24 to \$32	3	80.33									117.7	3.03									70.0	
	\$32 & over	2	57.27									79.6	1.26									29.1	

Average \$71.93

Average \$4.33

for each \$1,000 sold per full-time sales-person are shown for the stores classified as in Table 173. The bases of classification are location and amount sold per full-time sales-person. The amounts of wages and salaries in terms of selling expense for the stores thus classified are made fully comparable from group to group when they are put on a \$1,000 basis. The actual amounts with the graphic representation are shown in the right hand columns of Table 175. Stated in this form, the amounts of wages and salaries for stores in the small cities are relatively high and for those in the large cities relatively low. That is, the amounts stand in the same relative position as do those in which the unit is selling expense alone. Within each city-group they decrease rapidly as the sales per full-time sales-person increase, the absolute and percentage reductions in the small and large stores being, respectively, \$5.84 or 80.4 per cent., and \$6.43 or 83.6 per cent.

D.—Summary.

- (1). From year to year, the amounts of wages and salaries, in terms of sales alone and of sales per \$1,000 sold per full-time sales-person decreased. This condition holds generally for all stores and also for stores classified by size and by amount sold per full-time sales-person.
- (2). From year to year, the amounts of wages and sal-

aries per \$100 of selling expense per \$1,000 of sales per full-time sales-person decreased.

- (3). The amount of sales per full-time sales-person increased between 1914 and 1918, and 1918 and 1919.
- (4). Wages and salaries in terms of sales, of selling expense, and in terms of either per stock turnover or per \$1,000 sold per full-time sales-person, decrease as the amounts of sales per full-time sales-person increase. This holds for all stores and for stores of a given size.
- (5). For stores with a given amount of sales per sales-person, the amounts of wages and salaries per \$100 of total net sales and per \$100 of total net sales per stock turnover increase as the stores increase in size, while the amounts of wages and salaries per \$1,000 sold per full-time sales-person decrease as stores increase in size.
- (6). For stores with a given amount of sales per full-time sales-person, the amounts of wages and salaries per \$100 of selling expense, per stock turnover, and per \$100 of selling expense per \$1,000 sold per full-time sales-person decrease as the stores increase in size.

(7). The amounts of sales per full-time sales-person increase as the size of the store increases, and decrease as the wages and salaries per \$100 of total net sales increase.

(8). The amounts of sales for each \$100 of wages and salaries decrease as the stores increase in size and increase as the amounts sold per full-time sales-person increase.

(9). When stores of a given size are classified by size of city in which they are located, wages and salaries per \$100 of

total net sales, expressed either in simple or in complex units, decrease as the sales per full-time sales-person increase.

(10). When stores of a given size are classified by size of city in which they are located, the amounts of wages and salaries per \$100 of selling expense alone tend neither to increase nor to decrease, while the amounts in terms of both selling expense per stock turnover and selling expense for the amount sold

TABLE 176

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER STOCK TURN-OVER, FOR STORES CLASSIFIED BY SIZE AND BY METHOD OF PAYING REGULAR SALESMEN, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Wages and Salaries per \$100 of Total Net Sales														Wages and Salaries per \$100 of Total Net Sales per Stock Turnover															
			Amount	Per Cent.													Amount	Per Cent.													Actual	
				Graphic														Graphic														
				0	20	40	60	80	100	120	140	0	20	40	60	80	100	120	140	160												
Total (Average)	Total (Average)	254	36.17														100.0	2.94														100.0
	Straight Salary	197	5.98														96.9	2.99														101.7
	Salary & Commission	57	6.53														105.8	2.72														92.6
Under \$40	Total (Average)	28	4.38														71.0	2.92														99.3
	Straight Salary	23	4.52														73.3	3.01														102.4
	Salary & Commission	5	3.86														62.6	2.57														87.4
\$40 to \$80	Total (Average)	97	5.46														88.5	3.03														103.1
	Straight Salary	65	5.58														90.4	3.10														105.4
	Salary & Commission	12	4.68														75.9	2.60														88.4
\$80 to \$120	Total (Average)	89	6.68														106.3	3.52														119.7
	Straight Salary	65	6.32														102.4	3.16														107.5
	Salary & Commission	24	7.58														122.9	4.21														145.2
\$120 & over	Total (Average)	40	6.18														100.2	2.29														77.9
	Straight Salary	24	6.02														97.6	2.41														82.0
	Salary & Commission	16	6.34														102.8	2.65														69.7

Average \$6.17

Average \$2.94

TABLE 177

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER \$1,000 OF
SALES PER FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE
AND BY METHOD OF PAYING REGULAR SALESMEN, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Wages and Salaries per \$100 of Total Net Sales												Wages and Salaries per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.											Amount	Per Cent.												
				Graphic												Graphic												
				0	20	40	60	80	100	120	140	Actual		0		20	40	60	80	100	120	140	Actual					
Total (Average)	Total (Average)	264	\$6.17												100.0	0.50										100.0		
	Straight Salary	197	5.98												98.9	0.50										100.0		
	Salary & Commission	57	6.52												105.8	0.32										106.7		
Under \$40	Total (Average)	28	4.39												71.0	0.25										83.3		
	Straight Salary	23	4.52												73.3	0.27										90.0		
	Salary & Commission	5	3.86												62.6	0.15										50.0		
\$40 to \$50	Total (Average)	97	5.46												86.5	0.33										110.0		
	Straight Salary	85	5.59												90.4	0.34										113.3		
	Salary & Commission	12	4.68												75.9	0.30										100.0		
\$50 to \$100	Total (Average)	89	6.68												108.3	0.34										113.3		
	Straight Salary	65	6.32												102.4	0.33										110.0		
	Salary & Commission	24	7.58												122.9	0.37										123.3		
\$100 & over	Total (Average)	40	6.19												100.2	0.26										86.7		
	Straight Salary	24	6.02												97.6	0.23										78.7		
	Salary & Commission	16	6.34												102.8	0.30										100.0		
Average \$6.17												Average \$0.30																

per full-time sales-person decrease as the sales per full-time sales-person increase.

(2)—YEARLY AMOUNTS OF WAGES AND SALARIES IN RELATION TO THE METHODS BY WHICH SALESMEN ARE PAID.

Tables 176 to 183, inclusive, are submitted as throwing light on the question—Are wages and salaries, when measured in terms of sales, or selling expense alone, or when combined with stock turnover, and sales per full-time sales-person, higher or lower in stores where straight salaries

are used than in stores where salaries and a commission or a bonus are paid to salesmen?

A.—YEARLY AMOUNTS OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES AND PER \$100 OF SELLING EXPENSE, FOR STORES CLASSIFIED BY SIZE, 1919.

Without repeating the substance of the discussion on pages 118 to 127, which had to do with an analysis of total selling expense in terms of sales and total operating expense for stores paying their salesmen by different methods, it will suffice to summarize

the data in Tables 176 to 183, inclusive, bearing upon the amounts of wages and salaries paid to salesmen in stores which pay their salesmen according to the methods indicated.

In these tables, the stores are classified, first, by size, and second, by the methods of compensating regular salesmen, distinction being made for the stores using straight salaries as contrasted with those which use salaries and commission.

When wages and salaries are expressed in terms of sales, as in Tables 176 and 177, the average amounts are lower for stores using straight salaries in five, and lower for stores using salaries and commission in seven of

the groups.* When they are expressed in terms of selling expense, as in Tables 178 and 179, they are lower for straight salaries in three and lower for salaries and commission in nine of the groups. In these groupings both the simple and complex units are counted. When the amounts are expressed in terms of \$100 of sales and \$100 of selling expense, they are lower where straight salaries predominate in three of the groups and where salaries and commissions are used, in five of the groups. When they are expressed in terms of sales and selling expense per

* The low averages in the various tables are underlined.

TABLE 178
AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE AND BY METHOD OF PAYING REGULAR SALESMEN, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Wages and Salaries per \$100 of Selling Expense										Wages and Salaries per \$100 of Selling Expense per Stock Turnover													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	160	180	Actual			
Total (Average)	Total (Average)	254	\$63.21											100.0	\$30.10											100.0
	Straight Salary	197	64.89											102.7	32.45											107.0
	Salary & Commission	57	60.48											95.7	25.20											85.7
Under \$40	Total (Average)	28	71.97											113.9	47.96											159.4
	Straight Salary	23	77.16											122.1	51.44											170.9
	Salary & Commission	5	55.13											87.2	36.75											122.1
\$40 to \$80	Total (Average)	97	72.24											114.3	40.13											133.3
	Straight Salary	85	72.92											115.4	40.51											134.6
	Salary & Commission	12	67.39											106.6	37.44											124.4
\$80 to \$120	Total (Average)	89	66.60											105.4	35.05											116.4
	Straight Salary	65	66.23											104.8	33.12											110.0
	Salary & Commission	24	67.40											106.6	37.44											124.4
\$120 & over	Total (Average)	40	57.94											91.7	21.46											71.3
	Straight Salary	24	58.91											93.2	23.56											78.3
	Salary & Commission	16	56.92											90.2	18.38											61.1

Average \$63.21

Average \$30.10

TABLE 179

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE AND BY METHOD OF PAYING REGULAR SALESMEN, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Wages and Salaries per \$100 of Selling Expense						Wages and Salaries per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person											
			Amount	Per Cent.					Amount	Per Cent.										
				Graphic						Graphic										
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140
Total (Average)	Total (Average)	254	\$13.21							100.0	\$5.11							100.0		
	Straight Salary	197	64.89							102.7	5.21							103.2		
	Salary & Commission	57	60.48							95.7	2.95							94.9		
Under \$40	Total (Average)	28	71.97							113.9	4.05							130.2		
	Straight Salary	23	77.16							122.1	4.67							150.2		
	Salary & Commission	5	55.13							87.2	2.19							70.4		
\$40 to \$80	Total (Average)	97	72.24							114.3	4.42							142.1		
	Straight Salary	85	72.92							115.4	4.45							142.4		
	Salary & Commission	12	67.50							106.6	4.55							139.2		
\$80 to \$160	Total (Average)	89	66.60							105.4	3.45							110.5		
	Straight Salary	65	66.23							104.8	3.48							111.9		
	Salary & Commission	24	67.40							106.6	5.51							106.4		
\$160 & over	Total (Average)	40	57.94							91.7	2.45							78.6		
	Straight Salary	24	58.91							95.2	2.55							71.7		
	Salary & Commission	16	56.99							90.2	2.60							66.2		
			Average \$13.21																	
			Average \$5.11																	

turnover, they are lower in two of the groups where salaries alone are used and lower in six of the groups where salaries and commissions are employed. When they are expressed in terms of sales and of selling expense per \$1,000 sold per full-time salesperson, the amounts are lower in three groups where straight salaries are used, and lower in five cases where salaries and commissions are used. No account is taken of groups wherein the amounts are identical. Cumulating this evidence, it is found, when all measures are used, that the amounts are lower where salaries and commissions are employed in sixteen,

and lower where salaries alone are used, in eight of the cases.

Obviously, the tables in question have other uses than those of indicating the relative advantages, so far as expenses are concerned, of using different methods of compensating salesmen. The norms or standards themselves are of interest, reflecting, as they do for a rather large experience, the conditions which obtain in retail clothing stores.

Tables 180 to 183, inclusive, show the amounts paid to salesmen in stores classified by size and by the use or non-use of bonuses.

In terms of sales, the amounts of

wages and salaries, as shown in Tables 180 and 181, are lower in every case except one where stores paid no bonuses. When they are expressed as proportionate parts of selling expense, as in Tables 182 and 183, they are lower where no bonuses are paid for seven groups of stores and lower where bonuses are paid in five of the groups.

When they are measured in terms of sales and of selling expense alone, as in Tables 180 and 182, they are lower in seven cases where bonuses are not used and lower in one where they are used. When they are expressed in

terms of sales and of selling expense for each turnover, as in Tables 180 and 182, they are lower where bonuses are not paid in six of the cases and lower where bonuses are paid in two of the cases. When they are expressed in terms of sales and of selling expense per \$1,000 sold per full-time sales-person, as in Tables 181 and 183, they are lower where bonuses are not paid in five, and where bonuses are paid in two of the cases. Cumulating the evidence, therefore, the amounts, when measured in all the different units, are lower in eighteen cases where no bonuses are paid, and

TABLE 180
 AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER STOCK TURN-OVER, FOR STORES PAYING OR NOT PAYING A BONUS TO REGULAR SALESMEN, CLASSIFIED BY SIZE OF STORE, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Wages and Salaries per \$100 of Total Net Sales						Wages and Salaries per \$100 of Total Net Sales per Stock Turnover																					
			Amount	Per Cent.					Amount	Per Cent.																				
				Graphic						Actual	Graphic					Actual														
				0	20	40	60	80			100	120	0	20	40		60	80	100	120	140									
Total (Average)	Total (Average)	254	\$6.17						100.0	\$2.94						100.0														
	With Bonus	60	6.83						110.7	2.97						101.0														
	Without Bonus	194	5.82						94.3	2.77						94.2														
Under \$40	Total (Average)	28	4.38						71.0	2.82						99.3														
	With Bonus	5	4.78						77.5	3.19						108.5														
	Without Bonus	23	4.30						69.7	2.67						97.6														
\$40 to \$80	Total (Average)	97	5.46						88.5	3.03						103.1														
	With Bonus	14	6.69						108.4	3.35						113.9														
	Without Bonus	83	5.24						84.9	3.00						104.8														
\$80 to \$180	Total (Average)	89	6.68						108.5	3.52						119.7														
	With Bonus	26	7.16						116.0	3.77						128.2														
	Without Bonus	63	6.48						105.0	3.41						116.0														
\$180 & over	Total (Average)	40	6.18						100.2	2.29						77.9														
	With Bonus	15	6.73						109.1	2.59						88.1														
	Without Bonus	25	5.70						92.4	2.04						69.4														
			Average \$6.17														Average \$2.94													

TABLE 181

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON FOR STORES PAYING OR NOT PAYING A BONUS
TO REGULAR SALESMEN, CLASSIFIED BY SIZE OF STORE, 1919

Classified Total Net Sales (in \$'s)	Method of Compensation	Number of Stores	Wages and Salaries per \$100 of Total Net Sales						Wages and Salaries per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person							
			Amount	Per Cent.					Amount	Per Cent.						
				Graphic						Actual	Graphic					Actual
				0	20	40	60	80	100		120	0	20	40	60	
Total (Average)	Total (Average)	254	\$6.17						100.0	\$6.30						100.0
	With Bonus	60	6.83						110.7	0.30						100.0
	Without Bonus	194	5.82						94.3	0.30						100.0
Under \$40	Total (Average)	28	4.38						71.0	0.25						83.3
	With Bonus	5	4.78						77.5	0.27						90.0
	Without Bonus	23	4.30						69.7	0.24						80.0
\$40 to \$80	Total (Average)	97	5.46						86.5	0.33						110.0
	With Bonus	14	6.69						108.4	0.38						126.7
	Without Bonus	83	5.24						84.9	0.33						110.0
\$80 to \$150	Total (Average)	89	6.68						108.3	0.34						113.3
	With Bonus	26	7.16						116.0	0.36						120.0
	Without Bonus	63	6.49						105.0	0.34						113.3
\$150 & over	Total (Average)	40	6.18						100.2	0.26						86.7
	With Bonus	15	6.73						109.1	0.26						86.7
	Without Bonus	25	5.70						92.4	0.26						86.7

Average \$6.17

Average \$6.30

lower where bonuses are used in five cases.

From the evidence available, it seems safe to conclude that bonus payments, having little or no relation to salesmen's activities, result in making wages and salaries relatively high. On the other hand, when commissions are paid, salesmen's activities are stimulated with the result that wages and salaries in terms of sales are relatively lower under such conditions than when straight salaries alone obtain.*

* A somewhat different conclusion was reached in the discussion of total selling

It is not contended, of course, that these data prove a causal connection between the method of paying salesmen and the expenses involved. With another selection, or with a more generous sampling of stores, the conclusions might have been different. The tables are incorporated in the study largely because they represent the information available, and they may be useful in the establishment of expense in relation to the methods by which salesmen are paid. Obviously, it is more satisfactory to rest the case in this respect on conclusions drawn from an analysis of wages and salaries alone than from an analysis of the total selling expense into which enter expenses other than wages and salaries.

TABLE 182

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER STOCK TURN-OVER, FOR STORES PAYING OR NOT PAYING A BONUS TO REGULAR SALESMEN, CLASSIFIED BY SIZE OF STORE, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Wages and Salaries per \$100 of Selling Expense										Wages and Salaries per \$100 of Selling Expense per Stock Turnover													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	Actual	0		20	40	60	80	100	120	140	160	180	Actual		
Total (Average)	Total (Average)	254	\$63.21											100.0	\$30.10											100.0
	With Bonus	60	62.33											98.6	27.10											90.0
	Without Bonus	194	63.76											100.9	30.36											100.9
Under \$40	Total (Average)	26	71.97											113.9	47.98											159.4
	With Bonus	5	78.98											104.9	52.65											174.9
	Without Bonus	23	70.54											111.6	47.03											156.2
\$40 to \$80	Total (Average)	97	72.24											114.3	40.13											133.3
	With Bonus	14	80.78											127.8	40.39											154.2
	Without Bonus	83	70.54											111.6	41.49											137.8
\$80 to \$120	Total (Average)	89	66.60											105.4	35.05											116.4
	With Bonus	26	65.04											102.9	34.23											113.7
	Without Bonus	63	67.36											106.6	35.45											117.8
\$120 & over	Total (Average)	40	57.94											91.7	21.46											71.3
	With Bonus	15	59.10											83.5	22.73											75.5
	Without Bonus	25	56.82											89.9	20.20											67.4
			Average \$63.21										Average \$30.10													

norms for the guidance of merchants in this field of distribution.

4.—YEARLY AMOUNTS OF WAGES AND SALARIES IN RELATION TO THE EXPENDITURES FOR RENT AND INVESTMENTS IN FIXTURES, FOR STORES CLASSIFIED BY YEARS, BY SIZE, AND BY LOCATION.

The discussion of the amounts of wages and salaries follows that for the corresponding section relating to total amounts of selling expense, and utilizes, in most respects, the same units of comparison.*

* The methods by which these units are computed are explained on page 4.

(1)—YEARLY AMOUNTS OF WAGES AND SALARIES IN RELATION TO EXPENDITURES FOR RENT PER 100 SQUARE FEET OF FLOOR SPACE.

The same 303 stores which are used to determine the relation of selling expense to expenditures for rent per 100 square feet of floor space, are analyzed below in the study of wages and salaries for stores similarly grouped. The records are available, in the detail given, for 1919 only. In view of the discussion of selling expense in relation to expenditures for rent, it is necessary in the treatment of wages and salaries to print only

TABLE 183

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES
PER FULL-TIME SALES-PERSON, FOR STORES PAYING OR NOT PAYING A BONUS
TO REGULAR SALESMEN, CLASSIFIED BY SIZE OF STORE, 1919

Classified Total Net Sales (in 000's)	Method of Compensation	Number of Stores	Wages and Salaries per \$100 of Selling Expense							Wages and Salaries per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person										
			Amount	Per Cent.						Amount	Per Cent.						Actual			
				Graphic							Graphic									
				0	20	40	60	80	100	120	140	0	20	40	60	80	100	120	140	160
Total (Average)	Total (Average)	254	\$63.21								100.0	\$3.11								100.0
	With Bonus	60	62.33								98.6	2.75								88.4
	Without Bonus	194	63.76								100.9	3.32								106.4
Under \$40	Total (Average)	23	71.97								113.9	4.05								130.2
	With Bonus	5	78.90								124.9	4.39								141.2
	Without Bonus	23	70.54								111.6	3.98								128.0
\$40 to \$80	Total (Average)	97	72.24								114.3	4.42								142.1
	With Bonus	14	80.78								127.8	4.55								146.3
	Without Bonus	83	70.54								111.6	4.38								140.8
\$80 to \$180	Total (Average)	89	66.60								105.4	3.43								110.3
	With Bonus	26	65.04								102.9	3.27								105.1
	Without Bonus	63	67.36								106.6	3.51								112.9
\$180 & over	Total (Average)	40	57.94								91.7	2.45								78.9
	With Bonus	15	59.10								93.5	2.33								74.9
	Without Bonus	25	56.82								89.9	2.55								82.0
			Average \$63.21							Average \$3.11										

those tables which have particular application to the subject.

A.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size, 1919.

Table 184 shows the amounts of wages and salaries per \$100 of total net sales and per \$100 of total net sales for the amount sold per square foot of floor space for 303 stores, classified by size and by expenditures for rent for each 100 square feet of floor space used. Attention has already

been called to the fact that expenditures for wages and salaries, measured in terms of sales increase, and, when expressed in terms of sales and the amounts sold per unit of floor space, decrease as stores increase in size. Of chief interest now are the amounts expressed in both units for stores with varying expenditures for rent.

It will be recalled from an earlier discussion that, for a given amount of sales, less floor space is used when rentals are high than when they are low, and this fact should be kept in mind in interpreting the details of

Table 184 wherein the amounts are expressed in the unit of sales made on a given floor space.

When the stores are classified by size, the general tendency for two of the groups of stores is for the amounts of wages and salaries per \$100 of total net sales to increase as the amounts expended for rent per 100 square feet of floor space increase. For the remaining groups, the direction of change is uncertain. An increase, however, would normally be expected in view of the fact that wages and salaries, relative to sales, are high in the large stores, and it is these stores in which the rentals relative to floor space are high.

The store-groups which have large amounts of wages and salaries in terms of sales have small amounts when they are expressed in terms of the amounts sold per square foot of floor space. Within each group of stores, when classified by size, they decrease as the rent paid per 100 square feet of floor space increases. This is to be expected in view of the reduced floor space which accompanies high rentals. That is, as the rents paid per 100 square feet of floor space increase, there is a tendency to save on the space occupied, thus producing larger amounts of sales for each unit of space. When the amounts of wages and salaries are divided by sales and further by the amounts sold per unit of floor space, they are reduced. The extent of this reduction in the different store-groups may be seen by consulting Table 184.

In an earlier discussion it is shown,

as a result of studying various groups of stores, that the amounts of wages and salaries, as proportions of selling expense, decrease as stores increase in size. It is also shown, when they are measured in terms of sales made per square foot of floor space, that they decrease as stores increase in size. Table 185 confirms both of these tendencies. Interest, at this point, however, is not so much in the relative size of wages and salaries for stores of different size as it is in the relative amounts for stores of the same size, but with different expenditures for rent per square foot of floor space. The details of Table 185 show that for each group of stores, when classified by size, there is a tendency for the proportions which these amounts constitute of total selling expense, to decrease as the amounts spent for rent per square foot of floor space increase.

When wages and salaries are expressed as proportionate parts of selling expense and these in turn are divided by the amounts sold per square foot of floor space they rapidly decrease as expenditures for rent in terms of floor space increase. This is to be expected in view of the fact, as noted above, that with high rents there is a tendency for stores to save in floor space. The nature of these decreases as well as the actual amounts may be seen by consulting the details of Table 185. The graphic part of the table throws into bold relief the unmistakable tendency which characterizes the amounts in each group of stores.

TABLE 184

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES FOR THE AMOUNT SOLD PER SQUARE FOOT OF FLOOR SPACE, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Classified Total Net Sales (in 000's)	Amount of Rent per 100 sq. ft. of Floor Space	Number of Stores	Wages and Salaries per \$100 of Total Net Sales											Wages and Salaries per \$100 of Total Net Sales per Sales per Square Foot of Floor Space													
			Amount	Per Cent.										Actual	Amount	Per Cent.										Actual	
				Graphic												Graphic											
				0	20	40	60	80	100	120	140	160	0			20	40	60	80	100	120	140	160	180			
Total (Average)	Total (Average)	303	\$6.54											100.0	\$0.26											100.0	
	Under \$20	34	9.29											141.9	0.55											211.5*	
	\$20 to \$40	120	5.75											87.9	0.30											115.4	
	\$40 to \$60	65	7.27											111.2	0.27											103.8	
Under \$40	\$60 & over	86	5.97											91.3	0.16											61.5	
	Total (Average)	45	4.43											68.5	0.31											119.2	
	Under \$20	10	5.23											80.0	0.64											246.2*	
	\$20 to \$40	25	3.90											59.6	0.23											88.5	
	\$40 to \$60	7	4.56											69.7	0.29											111.5	
\$40 to \$60	\$60 & over	3	6.59											100.0	0.21											80.8	
	Total (Average)	113	5.09											77.8	0.27											103.8	
	Under \$20	16	5.01											76.6	0.50											192.3*	
	\$20 to \$40	48	4.41											67.4	0.23											88.5	
	\$40 to \$60	23	5.42											82.9	0.25											96.2	
\$30 to \$180	\$60 & over	26	6.00											91.7	0.20											76.9	
	Total (Average)	102	6.54											100.0	0.28											107.7	
	Under \$20	6	6.64											101.5	0.42											161.6	
	\$20 to \$40	41	6.60											104.0	0.35											134.6	
	\$40 to \$60	23	6.35											97.1	0.25											96.2	
\$120 & over	\$60 & over	22	6.36											97.2	0.19											73.1	
	Total (Average)	43	7.30											111.6	0.21											80.8	
	Under \$20	2	13.69											209.3*	0.32											123.1	
	\$20 to \$40	6	5.85											89.4	0.25											96.2	
	\$40 to \$60	10	6.55											130.7	0.23											107.7	
\$120 & over	\$60 & over	25	5.79											86.4	0.15											57.7	
	Average \$6.54														Average \$0.26												

Average \$6.54

Average \$0.26

*Full length not shown

B.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size of City in Which Located, 1919.*

The actual amounts of rent paid, as well as the relations which they

* Population figures are for 1920.

bear to the floor space utilized, are determined in large part by the size of the city in which the stores are located. Accordingly, it was necessary to classify by location the 303 stores studied in Tables 184 and 185. Two city-groups have been used for this purpose—those with population under 40,000 and those with population of 40,000 and over. For each

group of stores, as located, a further classification has been made according to the rent expenditures per 100 square feet of floor space. For each group of stores in this detail, the amounts of wages and salaries per \$100 of total net sales and per \$100 of total net sales for the amounts sold per square foot of floor space have

been determined. They are shown in Table 186.

For the 225 stores located in the small cities and for the 78 stores located in the large cities, there is no unmistakable tendency for the amounts of wages and salaries per \$100 of total net sales to increase or to decrease with the amounts ex-

TABLE 185

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER SALES PER SQUARE FOOT OF FLOOR SPACE, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Classified Total Net Sales (in 000's)	Amount of Rent per 100 sq. ft. of Floor Space	Number of Stores	Wages and Salaries per \$100 of Selling Expense										Wages and Salaries per \$100 of Selling Expense per Sales per Square Foot of Floor Space															
			Amount	Per Cent.										Amount	Per Cent.													
				Graphic											Graphic													
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	160	180	200	Actual				
Total (Average)	Total (Average)	305	\$65.86											100.0	\$2.59													100.0
	Under \$20	34	77.69											118.0	4.63													178.8
	\$20 to \$40	120	70.39											106.9	3.63													140.2
	\$40 to \$60	63	68.69											104.3	2.68													99.6
	\$60 & over	86	58.41											68.7	1.61													62.2
Under \$40	Total (Average)	45	69.37											105.3	4.94													186.9
	Under \$20	10	71.61											108.7	8.71													336.3*
	\$20 to \$40	25	67.36											102.3	3.96													152.9
	\$40 to \$60	7	68.50											103.7	4.41													170.3
	\$60 & over	3	75.76											115.0	2.40													92.7
\$40 to \$60	Total (Average)	113	71.31											108.3	3.82													147.5
	Under \$20	16	75.57											114.8	7.50													289.6*
	\$20 to \$40	48	69.61											105.7	3.69													142.5
	\$40 to \$60	23	71.73											108.9	3.30													127.4
	\$60 & over	26	71.10											108.0	2.33													90.0
\$60 to \$120	Total (Average)	102	66.78											101.4	2.85													110.0
	Under \$20	6	73.39											111.5	4.68													120.7
	\$20 to \$40	41	72.41											110.0	3.76													145.2
	\$40 to \$60	23	70.38											106.9	2.73													105.4
	\$60 & over	32	58.08											88.2	1.78													68.7
\$120 & over	Total (Average)	43	65.73											96.8	1.82													70.3
	Under \$20	2	79.63											120.9	2.82													108.9
	\$20 to \$40	6	65.40											99.3	2.82													108.9
	\$40 to \$60	10	67.38											102.3	2.22													85.7
	\$60 & over	25	56.58											85.9	1.42													54.6

Average \$65.86

Average \$2.59

*Full length not shown

pended for rent per 100 square feet of floor space. The average amount for the stores in the small cities is noticeably less than that for the stores in the large cities. Respectively, they are \$5.92 and \$7.15. Moreover, the amounts for stores with the same expenditure for rent, but with different location, are higher for the stores in the large than for those in the small cities.

When the amounts of wages and salaries per \$100 of total net sales for the amounts sold on each square foot of floor space are determined for the stores with different location and different expenditures for rent, the

average for the stores in the large cities is less than that for the stores in the small cities, and within each city-group the amounts decrease as the expenditures for rent increase. This tendency is likewise to be expected in view of the general conclusion that the higher the rent paid per unit of floor space, the smaller is the floor space used for a given amount of sales.

Attention should be called to the fact, however, that in Table 186 no distinction is made for stores of different size. When a city classification is used, however, the stores are, on the average, smaller in the small

TABLE 186

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER SALES PER SQUARE FOOT OF FLOOR SPACE, FOR STORES CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Size of City (in 000's)	Amount of Rent per 100 sq. ft. of Floor Space	Number of Stores	Wages and Salaries per \$100 of Total Net Sales										Wages and Salaries per \$100 of Total Net Sales per Sales per Square Foot of Floor Space															
			Amount	Per Cent.										Amount	Per Cent.													
				Graphic											Graphic													
				0	20	40	60	80	100	120	140	160	Actual		0	20	40	60	80	100	120	140	Actual					
Total (Average)	Total (Average)	303	\$6.54												100.0	\$0.26												100.0
	Under \$20	34	9.28												141.9	0.55												211.5*
	\$20 to \$40	120	5.75												87.9	0.30												115.4
	\$40 to \$60	63	7.27												111.2	0.27												103.9
	\$60 & over	86	5.97												91.3	0.16												61.5
Under 40	Total (Average)	225	5.92												90.5	0.28												107.7
	Under \$20	32	5.63												86.1	0.50												192.3*
	\$20 to \$40	110	5.60												95.6	0.27												103.8
	\$40 to \$60	41	6.66												101.8	0.27												103.8
	\$60 & over	32	5.83												89.1	0.18												69.2
40 and over	Total (Average)	79	7.15												109.3	0.22												84.8
	Under \$20	2	13.69												209.3*	0.32												123.1
	\$20 to \$40	10	6.88												105.2	0.51												196.2*
	\$40 to \$60	12	8.02												122.6	0.27												103.8
	\$60 & over	54	6.00												91.7	0.16												61.5

Average \$6.54

Average \$0.26

*Full length not shown

TABLE 187

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER SALES PER SQUARE FOOT OF FLOOR SPACE, FOR STORES CLASSIFIED BY SIZE OF CITY AND AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Size of City (in 000's)	Amount of Rent per 100 Sq. ft. of Floor Space	Number of Stores	Wages and Salaries per \$100 of Selling Expense										Wages and Salaries per \$100 of Selling expense per Sales per Square Foot of Floor Space																																
			Amount	Per Cent.										Amount	Per Cent.																														
				Graphic											Graphic																														
				0	20	40	60	80	100	120	140		0	20	40	60	80	100	120	140	160	180	200																						
Total (Average)	Total (Average)	303	\$65.85											100.0	\$2.59											100.0																			
	Under \$20	34	77.69											118.0	4.63											179.8																			
	\$20 to \$40	120	70.39											106.9	3.63											140.2																			
	\$40 to \$60	63	68.69											104.3	2.58											99.6																			
	\$60 & over	86	58.41											88.7	1.61											62.2																			
Under 40	Total (Average)	225	71.46											109.5	3.42											132.0																			
	Under \$20	32	74.08											112.5	6.63											256.0*																			
	\$20 to \$40	110	70.69											107.3	3.42											132.0																			
	\$40 to \$60	51	72.65											110.3	2.94											113.5																			
	\$60 & over	32	69.64											105.8	2.15											83.0																			
40 and over	Total (Average)	78	61.98											94.0	1.91											73.7																			
	Under \$20	2	79.63											120.9	1.86											71.8																			
	\$20 to \$40	10	68.60											104.2	5.08											196.1																			
	\$40 to \$60	12	64.23											96.6	2.21											85.3																			
	\$60 & over	54	56.21											85.4	1.50											57.9																			
Average \$65.05																							Average \$2.59																						

Average \$65.85

Average \$2.59

*Full length not shown

than in the large cities. This would explain, in part, the difference in the totals for the stores in the two city-groups.

Table 187 classifies the 303 stores in the same form as Table 186. The amounts of wages and salaries, however, are expressed in Table 187 as proportionate parts of selling expense. When stores in the two city-groups, taken as a whole, are compared, it is found that the average amount of wages and salaries per \$100 of selling expense is \$9.58 less for the stores in the large than for those in the small cities. The actual amounts are, respectively, \$61.88 and \$71.46. Within each city-group, when the

stores are classified by the amounts of rent paid per square foot of floor space, wages and salaries become proportionately smaller parts of the selling expense as the rent expenditures in terms of floor space increase. There are some exceptions to this general rule, but they are inconsequential.

When the amounts of wages and salaries, as proportionate parts of selling expense, are further expressed in terms of the sales per square foot of floor space, as is done in the right-hand columns of Table 187, the averages are smaller for the stores in the large than for those in the small cities, and in both city-groups the

amounts decrease as the expenditures for rent increase. There are some exceptions to this rule, but they are not sufficient to invalidate the general conclusion.

C.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size and by Size of City in Which Located, 1919.*

Because of the effect which the location, as well as the size of stores, has upon the amount of rent paid per square foot of floor space, it has been thought of interest to select for special study a group of 87 stores having sales in 1919 between \$40,000 and \$80,000, and to classify them according to their expenditures for rent in terms of floor space. This is done in

* Population figures are for 1920.

Table 188. This table also includes comparative figures for stores paying \$60 and over in rent per 100 square feet of floor space, but differently located. The methods by which amounts of wages and salaries are measured are those which have been used throughout this study. It is worth-while briefly to consider the actual amounts measured in the different ways and the tendencies which characterize them under different conditions of rent expenditure.

For the 87 stores located in cities with population of less than 40,000, it cost in wages and salaries \$5.35 to sell \$100 worth of goods. The average amount per \$100 of total net sales per stock turnover was \$3.15; per \$100 of total net sales for each \$1,000 sold per full-time sales-person it was \$0.33; and in terms of sales for the amount sold per full-time sales-per-

TABLE 188

RELATION OF WAGES AND SALARIES TO TOTAL NET SALES AND SELLING EXPENSE, FOR STORES HAVING SALES BETWEEN \$40,000 AND \$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Size of City (in 000's)	Amount of Rent per 100 sq. ft. of Floor Space	Number of Stores	Wages and Salaries per \$100 of Total Net Sales				Wages and Salaries per \$100 of Selling Expense			
			Sales Alone	Per Stock Turnover	Per \$1,000 of Sales per Full-time Sales-person	Per Sales per sq. ft. of Floor Space	Selling Expense Alone	Per Stock Turnover	Per \$1,000 of Sales per Full-time Sales-person	Per Sales per sq. ft. of Floor Space
Under 40	Average	87	\$5.35	\$3.15	\$0.33	\$0.31	\$72.60	\$42.71	\$4.42	\$4.17
	Under \$20	13	5.27	2.64	0.28	0.53	80.32	40.16	4.27	8.10
	\$20 to \$40	43	4.93	3.06	0.29	0.28	71.18	44.49	4.24	4.00
	\$40 to \$60	17	6.11	3.39	0.40	0.28	72.97	40.54	4.78	3.31
	\$60 & over	14	5.69	3.66	0.37	0.21	69.97	43.73	4.60	2.61
40 and over	\$60 & over	10	6.40	2.78	0.37	0.19	69.66	30.29	3.96	2.11

son, \$0.31. As the amounts expended for rent per unit of floor space increase, there is no tendency for wages and salaries in terms of sales alone either to increase or to decrease. This is not true, however, when the amounts are expressed in terms of sales per turnover. The larger the amount of rent paid per square foot of floor space, the larger is the amount of wages and salaries expressed in this unit. A similar increase with the amount of rent per 100 square feet of floor space holds also for wages and salaries expressed in terms of sales per \$1,000 sold per full-time salesperson. On the other hand, the tendency is equally certain for the amounts, measured in terms of sales for the amount sold per square foot of floor space, to decrease as expenditures for rent per 100 square feet of floor space increase.

When the amounts of wages and salaries are expressed as proportionate parts of selling expense, somewhat different tendencies are observed. It is unnecessary to comment on these in particular. Those who are interested may consult the table as to amounts and directions of change.

It is worth-while, however, to call attention to the fact that location affects the size of the amounts of wages and salaries when measured in terms of sales and of selling expense in stores having the same amount of expenditure for rent. Only a single group of stores—those which spent \$60 and over per 100 square feet of floor space—is available for such a

comparison. The details are found in Table 188.

D.—Summary.

- (1). When stores are classified by size, the amounts of wages and salaries in terms of sales increase in some and decrease in other groups, while, in terms of sales for the amount sold per square foot of floor space, they consistently decrease as the rental payments per 100 square feet of floor space increase.
- (2). For stores of a given size, the amounts of wages and salaries in terms of selling expense alone, and in terms of selling expense for the amounts sold per square foot of floor space decrease as the rent per square foot increases.
- (3). For stores with a given amount of rent per 100 square feet of floor space, the amounts of wages and salaries per \$100 of total net sales are higher, while per \$100 of total net sales, per sales per square foot of floor space, they are lower in large than in small cities.
- (4). For stores with a given rental per 100 square feet of floor space, the amounts of wages and salaries per \$100 of selling expense alone and per \$100 of selling expense for the amount sold per square foot of floor space are

higher in small than in large cities.

- (5). When stores of a given size, located in small cities, are classified by the amounts of rent paid per 100 square feet of floor space, wages and salaries measured in terms of sales per stock turnover, and of sales for the amount sold per full-time sales-person increase, while in terms of sales for the amount sold per square foot of floor space they decrease, as the rental payments per square foot of floor space increase.
- (6). When stores of a given size located in small cities are classified by amounts of rent paid per 100 square feet of floor space, wages and salaries measured in terms of selling expense for the amount sold per full-time sales-person increase and, in terms of selling expense for the amount sold per square foot of floor space, they decrease as the rental payments per square foot of floor space increase. The direction of change is uncertain for wages and salaries per \$100 of selling expense per stock turnover.
- (2)—YEARLY AMOUNTS OF WAGES AND SALARIES IN RELATION TO INVESTMENTS IN FIXTURES PER \$100 OF TOTAL NET SALES.

The order of the discussion of the amounts of wages and salaries per

\$100 of total net sales in this section closely follows that for the amounts of selling expense in relation to sales, pages 141 to 164.

A.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, 1919, 1918, and 1914.

The records of 135 identical stores in each of the years, 1919, 1918, and 1914, are available for the study of the amounts of wages and salaries paid to salesmen for each \$100 of total net sales, for stores classified according to the amounts invested in fixtures in relation to sales. The details are contained in Table 189. In 1914 the amount was \$7.64, in 1918, \$7.48, and in 1919, \$7.11. The average for the three years is \$7.34. Both wages and salaries increased from year to year, but sales increased the faster. Accordingly, wages and salaries in terms of sales decreased.

When the stores are classified according to the amounts of fixture investment, there is a general tendency in the combined and in the individual years for the amounts of wages and salaries to increase as the amounts invested in fixtures increase, both being expressed in terms of sales.*

In Table 190 the amounts of wages and salaries are expressed as proportionate parts of total selling expense. For the stores in the combined years, the average amount is \$67.28. In















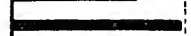





* In 1919 and 1918 the average amounts are relatively large for the stores having less than \$2 per \$100 of sales invested in fixtures. The explanation for these variations is found in Tables 194 and 195.

1914 the average amount was \$65.83, in 1918, \$67.87, and in 1919, \$67.54. That is, there was an increase between 1914 and 1918, and a slight decrease between 1918 and 1919. When the stores are classified by the amount invested in fixtures per \$100 of total

net sales, there is a general tendency for the amounts of wages and salaries in terms of selling expense to decrease as fixture investments in relation to sales increase. Inasmuch, however, as the stores from year to year differ in size, and that the

TABLE 189

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 135 IDENTICAL STORES CLASSIFIED BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Fixture Account per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
						0	20	40	60	80	100	120				
Total (Average)	Total (Average)	405	\$40,576,908	\$2,979,262	\$7.34											100.0
	Under \$2	72	8,020,930	596,212	7.43											101.2
	\$2 to \$4	131	10,428,302	652,819	6.26											85.3
	\$4 to \$6	86	7,841,233	496,580	6.33											86.2
	\$6 & over	116	14,286,443	1,233,651	8.64											117.7
1919	Total (Average)	155	18,919,233	1,345,703	7.11											96.9
	Under \$2	38	5,228,703	374,193	7.16											97.5
	\$2 to \$4	51	4,897,266	278,735	5.69											77.5
	\$4 to \$6	23	3,173,841	216,764	6.83											93.1
	\$6 & over	23	5,619,423	476,011	8.47											115.4
1918	Total (Average)	135	13,560,145	999,983	7.48											101.9
	Under \$2	20	2,163,476	188,851	8.73											118.9
	\$2 to \$4	45	3,706,654	242,626	6.55											89.2
	\$4 to \$6	34	2,807,944	158,878	5.66											77.1
	\$6 & over	36	4,682,071	409,628	8.75											119.2
1914	Total (Average)	135	8,297,530	633,576	7.64											104.1
	Under \$2	14	628,751	33,168	5.28											71.9
	\$2 to \$4	35	1,824,382	131,458	7.21											98.2
	\$4 to \$6	29	1,859,448	120,938	6.50											88.6
	\$6 & over	57	3,084,949	348,012	8.73											118.9

Average \$7.34

TABLE 190

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE, FOR 135 IDENTICAL STORES CLASSIFIED BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Fixture Account per \$100 of Total Net Sales	Number of Store- years	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
0 20 40 60 80 100 120													
Total (Average)	Total (Average)	405	\$4,428,098	\$2,979,262	\$67.28								100.0
	Under \$2	72	852,922	596,212	71.58								106.4
	\$2 to \$4	131	985,648	652,819	66.23								98.4
	\$4 to \$6	86	798,319	496,580	62.20								92.4
	\$6 & over	116	1,811,209	1,233,651	68.11								101.2
1919	Total (Average)	135	1,992,310	1,345,703	67.54								100.4
	Under \$2	38	535,232	374,193	69.91								103.9
	\$2 to \$4	51	428,443	278,735	65.06								96.7
	\$4 to \$6	23	326,474	216,764	66.40								98.7
	\$6 & over	23	702,161	476,011	67.79								100.8
1918	Total (Average)	135	1,473,360	999,983	67.87								100.9
	Under \$2	20	244,748	188,851	77.16								114.7
	\$2 to \$4	45	370,532	242,626	65.48								97.3
	\$4 to \$6	34	267,521	158,878	59.39								88.3
	\$6 & over	36	590,559	409,628	69.36								103.1
1914	Total (Average)	135	962,428	633,576	65.83								97.8
	Under \$2	14	52,942	33,168	62.65								93.1
	\$2 to \$4	35	186,673	131,458	70.42								104.7
	\$4 to \$6	29	204,324	120,938	59.19								88.0
	\$6 & over	57	518,489	348,012	67.12								99.8

Average \$67.28.

amounts both of wages and salaries and of selling expense are influenced by the size of the store, the absence of a marked tendency of change is to be expected. The relation of wages and salaries to selling expense for stores of different size is discussed later.

B.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size, 1919, 1918, and 1914.

The records of two groups of stores are available for the study of wages

and salaries for stores classified by size and by investment in fixtures per \$100 of total net sales. The first group—303 stores—applies alone to 1919. For 1919, 1918, and 1914, the records of 135 identical stores are used.

In 1919, based upon 303 stores, it cost \$6.54 in wages and salaries to sell \$100 worth of goods. As the stores increase in size, the amounts increase, the minimum—\$4.48—characterizing the stores with sales under \$40,000 and the maximum—\$7.30—applying to the stores with sales of \$180,000 and over. When the stores are classified by size, and further by the amounts of fixture investments per \$100 of total net sales, the amounts of wages and salaries per \$100 of total net sales increase as the fixture investments, similarly measured, increase. To this general rule there are some exceptions, but they are neither important nor numerous.

The purpose of classifying the stores as in Table 191 is to secure, if possible, an answer to the following question: Are wages and salaries in terms of sales relatively high in stores which have relatively large amounts invested in fixtures in relation to sales? The results of the analysis make it possible, with certain reservations, to answer the question in the affirmative. The stores as grouped are not precisely identical in size, although the variations, on the average, within the groups are not large. Obviously, there are many conditions which determine the amounts of wages and salaries. It is the purpose of this

analysis to show only the association between high wages and salaries and high fixture investments when both are measured in sales.

In Table 192 the amounts of total net sales secured for each \$100 of wages and salaries paid, have been calculated for the 303 stores as in Table 191. As the stores increase in size, relatively smaller amounts of sales are secured for each \$100 of wages and salaries. For each group of stores, when classified by size, and for the total, there is a general tendency for the amounts of sales secured for each \$100 of wages and salaries paid to decrease as the amounts invested in fixtures in relation to sales increase. In the total-section of the table, the decrease is more apparent than real, depending as it does upon the proportion in which stores of different size are included. It is the large stores which have relatively large fixture investments in relation to sales and it is precisely those which have relatively low amounts of sales in terms of wages and salaries paid. Accordingly, the effect of grouping all the stores together as in the total-section is to emphasize the inverse relation between sales secured for a given wage payment and the amounts invested in fixtures. A more suitable comparison is found in the details for stores of essentially the same size. For these stores, the tendency for the amounts of sales per \$100 of wages and salaries paid to decrease is not uniform, although it is generally apparent. Irrespective of any tendency which the amounts may describe,

TABLE 191

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER
\$100 OF TOTAL NET SALES, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Rumber of Stores	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales								
					Amount	Per Cent.						Actual	
						Graphic							
					0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	303	\$36,193,718	\$2,367,501	\$6.54							100.0	
	Under \$2	89	10,793,092	697,444	6.46							98.8	
	\$2 to \$4	120	11,972,443	673,257	5.62							85.9	
	\$4 to \$6	46	4,735,999	318,639	6.73							102.9	
	\$6 & over	48	8,691,184	678,161	7.80							119.3	
Under \$40	Total (Average)	45	1,399,886	62,748	4.48							68.5	
	Under \$2	10	323,183	9,608	2.97							45.4	
	\$2 to \$4	16	488,941	20,320	4.16							63.6	
	\$4 to \$6	9	285,784	16,979	5.98							91.4	
	\$6 & over	10	303,978	15,841	5.21							79.7	
\$40 to \$80	Total (Average)	113	6,500,336	330,557	5.09							77.8	
	Under \$2	28	1,609,446	68,619	4.26							65.1	
	\$2 to \$4	57	3,371,123	165,727	4.92							75.2	
	\$4 to \$6	17	981,374	69,996	7.13							109.0	
	\$6 & over	11	538,393	26,215	4.87							74.5	
\$80 to \$180	Total (Average)	102	11,986,362	784,290	6.54							100.0	
	Under \$2	36	4,187,940	278,765	6.66							101.8	
	\$2 to \$4	36	4,268,220	247,891	5.81							88.8	
	\$4 to \$6	15	1,658,547	123,810	7.46							114.1	
	\$6 & over	15	1,871,655	133,824	7.15							109.3	
\$180 & over	Total (Average)	43	16,307,134	1,189,906	7.30							111.6	
	Under \$2	15	4,672,523	340,452	7.29							111.6	
	\$2 to \$4	11	3,844,159	239,319	6.23							95.3	
	\$4 to \$6	5	1,813,294	107,854	5.95							91.0	
	\$6 & over	12	5,977,158	502,281	8.40							128.4	

Average \$6.54














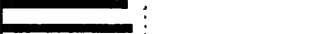
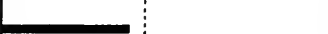



they are significant in themselves as standards obtaining in 1919 for stores of different size having different amounts of fixtures in relation to their sales.

For the years 1919, 1918, and 1914, combined and individually, the records of 135 stores are available for

the same type of analysis as that made in Table 191. For the stores for the combined years, as shown in Table 193, it cost in wages and salaries \$7.34 to sell \$100 worth of goods. As the stores increase in size, the expense for this purpose, measured in sales, increases from \$5.90 for stores

TABLE 192



















WAGES AND SALARIES, TOTAL NET SALES, AND AMOUNT OF TOTAL NET SALES PER \$100 OF WAGES AND SALARIES, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Wages & Salaries	Total Net Sales	Total Net Sales per \$100 of Wages and Salaries													
					Amount	Per Cent.												
						Graphic												
						0 20 40 60 80 100 120 140 160 180 200 220												
															Actual			
Total (Average)	Total (Average)	303	\$2,567,501	\$36,193,718	\$1,529													100.0
	Under \$2	89	697,444	10,793,092	1,548													101.2
	\$2 to \$4	120	673,257	11,972,443	1,778													116.3
	\$4 to \$6	46	318,639	4,736,999	1,487													97.5
	\$6 & over	48	678,161	8,691,184	1,282													85.8
Under \$40	Total (Average)	45	62,748	1,399,886	2,231													145.9
	Under \$2	10	9,608	323,183	3,364													220.0
	\$2 to \$4	16	20,320	488,941	2,406													157.4
	\$4 to \$6	9	16,979	283,784	1,671													109.3
	\$6 & over	10	15,841	303,978	1,919													125.5
\$40 to \$80	Total (Average)	113	330,567	6,500,336	1,966													128.6
	Under \$2	28	68,619	1,609,446	2,345													153.4
	\$2 to \$4	57	165,727	3,371,123	2,034													133.0
	\$4 to \$6	17	69,996	981,374	1,402													91.7
	\$6 & over	11	26,215	538,393	2,054													154.3
\$80 to \$180	Total (Average)	102	784,290	11,986,362	1,528													99.9
	Under \$2	36	278,765	4,187,940	1,502													98.2
	\$2 to \$4	36	247,891	4,268,220	1,722													112.6
	\$4 to \$6	15	123,810	1,558,547	1,340													87.6
	\$6 & over	15	133,824	1,871,655	1,399													91.5
\$180 & over	Total (Average)	43	1,189,906	16,307,134	1,370													89.6
	Under \$2	15	340,452	4,672,523	1,372													89.7
	\$2 to \$4	11	239,319	3,844,159	1,606													105.0
	\$4 to \$6	5	107,854	1,813,294	1,681													109.9
	\$6 & over	12	502,281	5,977,158	2,190													77.8

Average \$1,529

TABLE 193

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER
 \$100 OF TOTAL NET SALES, FOR 135 IDENTICAL STORES CLASSIFIED BY SIZE
 AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL
 NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number Stores- years	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales										
					Amount	Per Cent.									Actual
						Graphic									
					0	20	40	60	80	100	120	140			
Total (Average)	Total (Average)	405	\$40,576,903	\$2,979,262	\$7.34										100.0
	Under \$2	72	8,020,930	596,212	7.43										101.2
	\$2 to \$4	131	10,428,302	652,919	6.26										85.3
	\$4 to \$6	86	7,841,233	496,530	6.33										86.2
	\$6 & over	116	14,286,443	1,233,651	8.64										117.7
Under \$40	Total (Average)	112	3,119,809	184,127	5.90										80.4
	Under \$2	14	403,857	18,437	4.57										62.3
	\$2 to \$4	28	800,159	43,360	5.42										75.8
	\$4 to \$6	27	723,519	39,748	5.49										74.8
	\$6 & over	43	1,192,274	82,582	6.93										94.4
\$40 to \$80	Total (Average)	153	8,672,180	569,951	6.57										89.5
	Under \$2	20	1,107,291	58,345	5.27										71.8
	\$2 to \$4	63	3,755,597	214,550	5.71										77.8
	\$4 to \$6	31	1,653,451	105,659	6.39										87.1
	\$6 & over	39	2,155,941	191,407	8.83										121.0
\$80 to \$180	Total (Average)	98	11,411,444	851,780	7.46										101.6
	Under \$2	27	3,021,911	211,978	7.01										95.5
	\$2 to \$4	33	3,838,758	280,742	7.31										99.6
	\$4 to \$6	19	2,392,924	176,671	7.38										100.5
	\$6 & over	19	2,157,851	182,339	8.45										115.1
\$180 & over	Total (Average)	42	17,373,475	1,373,394	7.91										107.8
	Under \$2	11	3,437,871	307,452	8.81										120.0
	\$2 to \$4	7	2,033,733	114,157	5.61										76.4
	\$4 to \$6	9	3,071,339	174,502	5.68										77.4
	\$6 & over	15	8,780,477	777,273	8.85										120.6

Average \$7.34

with sales under \$40,000, to \$7.91 for stores with sales of \$180,000 and over. Moreover, when all the stores are combined, irrespective of size, for the three years, the amounts tend gener-

ally to increase as the amounts invested in fixtures per \$100 of total net sales increase. The same general tendency, with certain exceptions, also holds for the stores classified by size.

TABLE 194

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
						0	20	40	60	80	100	120	140			
Total (Average)	Total (Average)	135	\$18,919,235	\$1,345,703	\$7.11											100.0
	Under \$2	38	5,228,703	374,193	7.16											100.7
	\$2 to \$4	51	4,897,266	278,735	5.69											80.0
	\$4 to \$6	23	3,175,841	216,764	6.83											96.1
	\$6 & over	23	5,618,423	476,011	8.47											119.1
Under \$40	Total (Average)	12	374,325	16,031	4.28											60.2
	Under \$2	2	62,964	1,300	2.06											29.0
	\$2 to \$4	4	129,541	4,969	3.84											54.0
	\$4 to \$6	3	92,703	6,389	6.89											96.9
	\$6 & over	3	89,117	3,373	3.78											55.2
\$40 to \$80	Total (Average)	52	2,967,756	167,315	5.64											79.3
	Under \$2	8	470,684	22,832	4.85											66.2
	\$2 to \$4	28	1,658,927	81,234	4.90											68.9
	\$4 to \$6	8	431,726	33,427	7.74											108.9
	\$6 & over	8	406,419	29,822	7.34											103.2
\$80 to \$150	Total (Average)	48	5,603,210	413,987	7.39											103.9
	Under \$2	20	2,217,649	160,698	7.25											102.0
	\$2 to \$4	15	1,759,679	117,275	6.66											93.7
	\$4 to \$6	7	836,118	69,094	8.26											116.2
	\$6 & over	6	789,764	66,920	8.47											119.1
\$150 & over	Total (Average)	23	9,973,542	748,370	7.50											105.5
	Under \$2	8	2,477,406	189,363	7.64											107.5
	\$2 to \$4	4	1,349,118	75,257	5.58											78.5
	\$4 to \$6	5	1,813,294	107,854	5.95											86.7
	\$6 & over	6	4,334,123	375,896	8.67											121.9

Average \$7.11

It may be of interest briefly to call attention to this tendency for the stores which sold between \$80,000 and \$180,000 worth of goods in any one of these years. The average amount for the entire group is \$7.46. For

the stores with fixture investment less than \$2 per \$100 of total net sales, it is \$7.01 and for those with a fixture investment per \$100 of total net sales of \$6 or more, it is \$8.45. Between these limits, the average

TABLE 195























TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
0 20 40 60 80 100 120 140 160																
Total (Average)	Total (Average)	135	\$15,560,145	\$999,983	\$7.48											100.0
	Under \$2	20	2,163,476	138,851	6.73											116.7
	\$2 to \$4	45	3,706,654	242,626	6.55											87.6
	\$4 to \$6	34	2,807,944	158,878	5.66											75.7
	\$6 & over	36	4,662,071	409,628	8.75											117.0
Under \$40	Total (Average)	37	1,117,468	64,726	5.79											77.4
	Under \$2	4	124,966	7,595	6.08											81.3
	\$2 to \$4	8	269,792	12,531	4.64											62.0
	\$4 to \$6	11	277,192	14,750	4.96											66.3
	\$6 & over	14	425,518	29,850	7.01											93.7
\$40 to \$80	Total (Average)	56	3,239,547	211,586	6.53											87.3
	Under \$2	8	454,936	24,785	5.70											76.2
	\$2 to \$4	22	1,335,132	81,488	6.10											81.6
	\$4 to \$6	15	779,116	45,126	5.79											77.4
	\$6 & over	11	690,363	60,187	8.72											116.6
\$80 to \$180	Total (Average)	28	3,298,407	242,070	7.34											98.1
	Under \$2	5	593,109	38,382	6.47											86.5
	\$2 to \$4	12	1,417,061	109,697	7.74											103.5
	\$4 to \$6	5	654,591	41,854	6.39											85.4
	\$6 & over	6	633,646	52,137	8.23											110.0
\$180 & over	Total (Average)	14	5,704,723	481,601	8.44											112.6
	Under \$2	3	1,010,465	118,089	11.69											156.3
	\$2 to \$4	3	684,669	38,910	5.68											75.9
	\$4 to \$6	3	1,077,045	57,148	5.31											71.
	\$6 & over	5	2,932,544	267,454	9.12											121.9

Average \$7.43

TABLE 196

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales									
					Amount	Per Cent.								Actual
						Graphic								
0 20 40 60 80 100 120 140														
Total (Average)	Total (Average)	135	\$8,297,530	\$635,576	\$7.64									100.0
	Under \$2	14	628,751	33,168	5.28									69.1
	\$2 to \$4	35	1,824,382	131,458	7.21									94.4
	\$4 to \$6	29	1,859,448	120,938	6.50									85.1
	\$6 & over	57	3,984,949	346,012	8.73									114.3
Under \$40	Total (Average)	63	1,628,016	103,370	6.35									83.1
	Under \$2	8	215,927	9,542	4.42									57.9
	\$2 to \$4	16	400,826	25,860	6.45									84.4
	\$4 to \$6	13	333,624	18,609	5.58									75.0
	\$6 & over	26	677,639	49,359	7.28									96.3
\$40 to \$80	Total (Average)	45	2,464,877	191,060	7.75									101.4
	Under \$2	4	201,671	10,728	5.32									69.6
	\$2 to \$4	13	761,538	51,828	6.81									89.1
	\$4 to \$6	8	442,609	27,106	6.12									80.1
	\$6 & over	20	1,059,059	101,398	9.57									125.3
\$80 to \$180	Total (Average)	22	2,509,827	195,723	7.80									102.1
	Under \$2	2	211,153	12,898	6.11									80.0
	\$2 to \$4	6	662,018	53,770	8.12									106.3
	\$4 to \$6	7	902,215	65,723	7.28									95.3
	\$6 & over	7	734,441	63,332	8.62									112.8
\$180 & over	Total (Average)	5	1,694,810	143,423	8.46									110.7
	Under \$2	-	-	-	-									-
	\$2 to \$4	-	-	-	-									-
	\$4 to \$6	1	181,000	9,500	5.25									68.7
	\$6 & over	4	1,513,810	133,923	8.85									115.8

Average \$7.64

amounts increase as the fixture investments increase. It should be remembered in this connection, however, that identical stores from year to year are not included. The sales of all the stores in each year, however, fall within the limits set up for this group.

A more satisfactory comparison of the amounts of wages and salaries per \$100 of total net sales can be made from year to year for stores of the same size, but with different fixture investments in relation to sales. Comparisons of this character can be made by consulting Tables 194 to 196, inclusive, which refer respectively to the years 1919, 1918, and 1914. It will be remembered that, in the analysis of Table 191, the records of 303 stores for 1919 were used. Table 194 contains the records of 135 stores for the same year, similarly classified. Both groups of stores on the whole tend to show that the amounts of wages and salaries per \$100 of total net sales increase as the amounts of fixtures per \$100 of total net sales increase. It is true that the stores in the two tables are not mutually exclusive. All of the 135 stores in the total-section of Table 194 are included in the corresponding part of Table 191 for 303 stores. The reason for selecting two groups of stores was to make use of the widest possible experience of stores for a single year.

It is shown in Table 189 that the amounts of wages and salaries per \$100 of total net sales decreased from 1914 to 1918, and from 1918 to 1919. Such a condition also holds from year

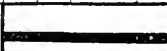



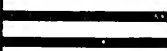









to year when these stores are classified by size. Moreover, from year to year, on the whole, the amounts seem to decrease for stores of the same size with given amounts of fixture investment per \$100 of total net sales. It is unnecessary to point out the extent of this agreement or the instances in which it does not hold, inasmuch as the actual amounts are shown in the tables in detail and are available to the reader for such a comparison.

In the discussion of the amounts of selling expense per \$100 of total net sales, the point was made that fixture investments tend on the whole to be large in terms of sales where selling expenses, in terms of sales, are large. A series of tables, 93 to 96, inclusive, was presented to show this tendency. It is thought to be unnecessary, in view of the fact that approximately 66 per cent. of selling expense is chargeable to wages and salaries, to show similar tables giving the amounts of fixtures per \$100 of total net sales in stores with different amounts of wages and salaries in relation to sales. The influences which determine the relation of fixtures to sales for stores with different amounts of selling expense, similarly measured, would also operate to determine the amount of fixtures when the stores are classified according to wages and salaries in relation to sales.

The amounts of wages and salaries for stores of different sizes and fixture investments per \$100 of total net sales, may also be expressed as proportionate parts of selling ex

TABLE 197



















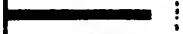

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES
PER \$100 OF SELLING EXPENSE, FOR STORES CLASSIFIED BY SIZE AND BY
AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense										
					Amount	Per Cent.									Actual
						Graphic									
						0	20	40	60	80	100	120	140		
Total (Average)	Total (Average)	303	\$3,595,401	\$2,367,501	\$65.85										100.0
	Under \$2	89	984,379	697,444	70.85										107.6
	\$2 to \$4	120	1,063,537	672,257	62.14										94.4
	\$4 to \$6	46	469,533	318,639	67.86										103.1
	\$6 & over	48	1,057,952	678,161	64.10										97.3
Under \$40	Total (Average)	45	90,453	62,748	69.37										105.3
	Under \$2	10	14,975	9,608	64.16										97.4
	\$2 to \$4	16	30,114	20,320	67.48										102.5
	\$4 to \$6	9	21,226	16,979	79.99										121.5
	\$6 & over	10	24,138	15,841	65.63										99.7
\$40 to \$80	Total (Average)	113	463,566	330,557	71.31										108.3
	Under \$2	28	94,543	68,619	72.58										110.2
	\$2 to \$4	57	240,121	165,727	69.02										104.8
	\$4 to \$6	17	92,359	69,996	75.79										115.1
	\$6 & over	11	36,543	26,215	71.74										108.9
\$80 to \$180	Total (Average)	102	1,174,364	784,290	66.78										101.4
	Under \$2	36	401,886	278,765	69.36										105.3
	\$2 to \$4	36	388,373	247,691	63.83										96.9
	\$4 to \$6	15	176,478	123,610	70.16										106.5
	\$6 & over	15	207,627	133,824	64.45										97.9
\$180 & over	Total (Average)	43	1,867,018	1,189,906	63.73										96.8
	Under \$2	15	472,975	340,452	71.98										109.3
	\$2 to \$4	11	424,929	239,319	56.32										85.5
	\$4 to \$6	5	179,470	107,854	60.10										91.3
	\$6 & over	12	789,644	502,281	63.61										96.6

Average \$65.85

TABLE 198

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES
PER \$100 OF SELLING EXPENSE, FOR 135 IDENTICAL STORES CLASSIFIED BY
SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL
NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Store- years	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	406	\$4,428,098	\$2,979,262	\$67.28								100.0
	Under \$2	72	832,922	596,212	71.58								106.4
	\$2 to \$4	131	985,648	652,819	66.23								98.4
	\$4 to \$6	86	796,319	496,530	62.20								92.4
	\$6 & over	116	1,811,209	1,253,651	68.11								101.2
Under \$40	Total (Average)	112	263,714	184,127	69.82								103.8
	Under \$2	14	25,921	18,437	71.13								105.7
	\$2 to \$4	28	64,602	43,360	67.12								99.8
	\$4 to \$6	27	58,106	39,748	68.41								101.7
	\$6 & over	43	115,086	82,582	71.76								106.7
\$40 to \$80	Total (Average)	153	806,361	569,961	70.68								105.1
	Under \$2	20	78,674	58,345	74.16								110.2
	\$2 to \$4	63	314,078	214,550	68.31								101.5
	\$4 to \$6	31	158,148	105,659	66.81								99.3
	\$6 & over	39	255,461	191,407	74.93								111.4
\$80 to \$180	Total (Average)	96	1,253,879	851,780	67.93								101.0
	Under \$2	27	307,174	211,978	69.01								102.6
	\$2 to \$4	33	405,625	280,742	69.21								102.9
	\$4 to \$6	19	274,227	176,671	64.43								95.8
	\$6 & over	19	266,855	182,389	68.35								101.6
\$180 & over	Total (Average)	42	2,104,144	1,373,394	65.27								97.0
	Under \$2	11	421,153	307,452	73.00								108.5
	\$2 to \$4	7	201,345	114,167	56.70								84.3
	\$4 to \$6	9	307,839	174,502	56.69								84.3
	\$6 & over	15	1,173,807	777,273	66.22								98.4

Average \$67.28

pense. This is done for 1919 in Table 197 and for the years 1919, 1918, and 1914, combined and individually, in Tables 198 to 201, inclusive.

In 1919, for the 303 stores the records of which are available, wages and salaries constituted \$65.85 out of every \$100 of selling expense. As the stores increase in size, however, this amount becomes a relatively smaller proportion. The amount for stores having sales of \$180,000 and over is \$63.73, or 96.8 per cent. of the average. Within each group of stores, when classified by size, there seems to be no definite tendency for the amounts of wages and salaries per \$100 of selling expense to increase or decrease with the amounts invested in fixtures per \$100 of total net sales. Moreover, the variations in the actual amounts from store-group to store-group in stores of the same size are not large.

Table 198 shows the amounts of wages and salaries per \$100 of selling expense for 135 stores for the combined years 1919, 1918, and 1914. For these years, wages and salaries constitute \$67.28 of each \$100 of selling expense. Moreover, for the combined years, the amounts generally become smaller proportionate parts of selling expense as the stores increase in size. In other words, what is true for 1919 alone is also true for a number of identical stores for the three years combined. When the stores for the combined years are classified by size, there seems to be no clear tendency for the amounts of wages and salaries per \$100 of sell-

ing expense, in stores of the same size, either to increase or to decrease regularly as the amounts invested in fixtures per \$100 of total net sales increase. Here, again, the experience for a limited number of stores for the three years combined is similar to that for 1919 when a larger store experience is used.

In Tables 199 to 201, inclusive, the amounts of wages and salaries per \$100 of selling expense are shown for the years 1919, 1918, and 1914, respectively, for the stores classified by size and by their fixture investments. Attention was called in Table 185 to the fact that the amounts of wages and salaries per \$100 of selling expense increased between 1914 and 1918, and decreased between 1918 and 1919. The tendency from year to year for stores of the same size, as shown in these tables, is uncertain. The actual amounts are contained in the table and anyone who is interested may compare them for himself.

C.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales, for Stores Classified by Amounts of Inventory per \$100 of Total Net Sales, 1919.

In the foregoing discussion, the bases of classification have been years, size of store, and fixture investment per \$100 of total net sales. In Table 202, an additional basis of classification is used for a group of 282 stores for 1919. No cognizance, however, is taken of store size. The stores are classified according to the amounts of inventories which they had at the

TABLE 199



















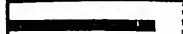


TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES
PER \$100 OF SELLING EXPENSE, FOR 135 STORES CLASSIFIED BY SIZE
AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF
TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.						Actual	
						Graphic							
					0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	135	\$1,992,310	\$1,345,703	\$67.54							100.0	
	Under \$2	36	535,232	374,193	69.91							103.5	
	\$2 to \$4	51	428,443	278,735	65.06							96.3	
	\$4 to \$6	23	326,474	216,764	66.40							98.3	
	\$6 & over	23	702,161	476,011	67.79							100.4	
Under \$40	Total (Average)	12	24,945	16,031	64.27							95.2	
	Under \$2	2	5,398	1,500	38.26							56.6	
	\$2 to \$4	4	8,213	4,969	60.50							89.6	
	\$4 to \$6	3	7,582	6,369	84.27							124.8	
	\$6 & over	3	5,752	3,373	58.64							86.8	
\$40 to \$80	Total (Average)	52	229,272	167,315	72.98							108.1	
	Under \$2	8	29,693	22,632	76.89							113.8	
	\$2 to \$4	28	118,454	81,234	68.58							101.5	
	\$4 to \$6	8	43,053	33,427	77.64							115.0	
	\$6 & over	8	38,072	29,822	78.33							116.0	
\$80 to \$160	Total (Average)	48	587,583	413,987	70.46							104.3	
	Under \$2	20	226,744	160,698	70.87							104.9	
	\$2 to \$4	15	168,668	117,275	69.53							102.9	
	\$4 to \$6	7	96,369	69,094	71.70							106.2	
	\$6 & over	6	95,602	66,920	69.85							103.4	
\$160 & over	Total (Average)	23	1,150,510	748,370	65.05							96.3	
	Under \$2	8	275,397	189,363	68.76							101.8	
	\$2 to \$4	4	133,108	75,257	56.54							83.7	
	\$4 to \$6	5	179,470	107,854	60.10							89.0	
	\$6 & over	6	562,535	375,896	66.82							98.9	

Average \$67.54

TABLE 200

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES
PER \$100 OF SELLING EXPENSE, FOR 135 STORES CLASSIFIED BY SIZE
AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF
TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100-of Selling Expense						
					Amount	Per Cent.					
						Graphic				Actual	
						0	20	40	60		80
Total (Average)	Total (Average)	135	\$1,473,360	\$999,983	\$67.87						100.0
	Under \$2	20	244,748	188,851	77.16						113.7
	\$2 to \$4	45	370,532	242,626	65.48						96.5
	\$4 to \$6	34	267,521	158,878	59.39						87.5
	\$6 & over	36	590,559	409,628	69.36						102.2
Under \$40	Total (Average)	37	92,371	64,726	70.07						103.2
	Under \$2	4	9,959	7,595	76.26						112.4
	\$2 to \$4	8	19,976	12,531	62.73						92.4
	\$4 to \$6	11	23,674	14,750	62.30						91.8
	\$6 & over	14	38,762	29,850	77.01						113.5
\$40 to \$80	Total (Average)	56	299,694	211,586	70.60						104.0
	Under \$2	8	33,916	24,785	73.08						107.7
	\$2 to \$4	22	121,256	81,438	67.20						99.0
	\$4 to \$6	15	65,956	45,126	68.42						100.8
	\$6 & over	11	78,567	60,187	76.61						112.9
\$80 to \$180	Total (Average)	28	365,676	242,070	66.56						99.1
	Under \$2	5	55,117	38,382	69.64						102.6
	\$2 to \$4	12	161,063	109,697	68.11						100.4
	\$4 to \$6	5	67,483	41,854	62.02						91.4
	\$6 & over	6	80,013	52,137	65.16						96.0
\$180 & over	Total (Average)	14	717,619	481,601	67.11						98.9
	Under \$2	3	145,756	118,039	81.02						119.4
	\$2 to \$4	3	63,237	38,910	57.02						84.0
	\$4 to \$6	3	110,409	57,143	51.76						76.3
	\$6 & over	5	393,217	267,454	68.02						100.2

Average \$67.87

close of 1919 and, further, by their fixture investment per \$100 of total net sales. Two methods of measuring wages and salaries are used: first, in terms of sales, and second, in terms of sales per stock turnover. This table merits consideration. It should be remembered that the larger the store, generally speaking, the smaller the inventory and the larger the stock turnover. Keeping this fact in mind, the attention of the reader is called to the details of the table.

For stores which had inventories at the close of 1919 of less than \$20 per \$100 of total net sales, it cost in wages and salaries \$5.64 to sell \$100 worth of goods. For those that had inventories of \$20 to \$40, it cost \$7.05, and for those that had inventories of \$40 and over, the amount was \$6.07. Within each group of stores having these inventories, the table also shows the amounts of wages and salaries per \$100 of total net sales for stores having different fixture investments in relation to their sales. When the stores are classified in this form, there is a general but not uninterrupted tendency for the amounts to increase with the fixture investments. The irregularity may be due to the size of the store, the rapidity of the stock turnover, and the widths of the groups used in the classification of the inventories. The actual amounts, however, are of interest in spite of the fact that they do not regularly increase.

Table 202 also contains the amounts of wages and salaries expressed in terms of sales per stock turnover. As

the business of these 282 stores is transacted, it costs \$6.67 in wages and salaries to sell \$100 worth of goods. When the amount is divided by the average turnover, it becomes \$3.03. As the inventories increase, the amounts of wages and salaries per \$100 of total net sales per stock turnover also increase. The average amount for the stores having inventories of less than \$20 per \$100 of total net sales is \$1.28 and for those with inventories of \$40 and over per \$100 of total net sales, \$4.34. For the group of stores with inventories of less than \$20 per \$100 of total net sales, the data are inadequate to answer the question whether wages and salaries per \$100 of total net sales per stock turnover increase or decrease with the amount invested in fixtures per \$100 of total net sales. For the other two groups of stores, when classified by inventories, the data reveal a general tendency for the amounts to increase as the investments in fixtures increase. That is, for stores with a given amount of inventory, it costs more in wages and salaries per \$100 of total net sales per stock turnover to sell a given amount of goods when fixture investments are large in relation to sales, than when they are small.

The significance of Table 202 to the merchant is clear in certain respects. It indicates the value of low inventories and high turnover as a means of reducing the cost of wages and salaries in relation to sales. Moreover, it also emphasizes the fact that wages and salaries are relatively low in

TABLE 201

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES
PER \$100 OF SELLING EXPENSE, FOR 135 STORES CLASSIFIED BY SIZE
AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF
TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense								
					Amount	Per Cent.							
						Graphic							
						0	20	40	60	80	100	120	Actual
Total (Average)	Total (Average)	135	\$962,428	\$633,576	\$65.83								100.0
	Under \$2	14	52,942	33,168	62.65								95.2
	\$2 to \$4	35	186,673	131,458	70.42								107.0
	\$4 to \$6	29	204,324	120,938	59.19								89.9
	\$6 & over	57	518,489	348,012	67.12								102.0
Under \$40	Total (Average)	63	146,398	103,370	70.61								107.3
	Under \$2	8	12,564	9,542	75.95								115.4
	\$2 to \$4	16	36,413	25,860	71.02								107.9
	\$4 to \$6	13	26,849	18,609	69.31								105.3
	\$6 & over	26	70,572	49,359	69.94								106.2
\$40 to \$80	Total (Average)	45	277,395	191,060	68.88								104.6
	Under \$2	4	15,065	10,728	71.21								108.2
	\$2 to \$4	13	74,368	51,828	69.69								105.9
	\$4 to \$6	8	49,140	27,106	55.16								83.8
	\$6 & over	20	138,822	101,398	78.04								111.0
\$80 to \$180	Total (Average)	22	302,620	195,723	64.68								98.3
	Under \$2	2	25,313	12,898	50.95								77.4
	\$2 to \$4	6	75,892	53,770	70.85								107.8
	\$4 to \$6	7	110,375	65,723	59.55								90.5
	\$6 & over	7	91,040	63,332	69.57								105.7
\$180 & over	Total (Average)	5	236,015	143,423	60.77								92.3
	Under \$2	-	-	-	-								-
	\$2 to \$4	-	-	-	-								-
	\$4 to \$6	1	17,960	9,500	52.90								80.4
	\$6 & over	4	218,055	133,923	61.42								93.3

Average \$65.83

TABLE 202

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER STOCK TURN-OVER, FOR STORES CLASSIFIED BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919

Amount of Inventory per \$100 of Total Net Sales	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Wages and Salaries per \$100 of Total Net Sales										Wages and Salaries per \$100 of Total Net Sales per Stock Turnover													
			Amount	Per Cent.										Amount	Per Cent.										Actual	
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	0	20		40	60	80	100	120	140	160	180				
Total (Average)	Total (Average)	232	\$6.07											100.0	\$3.03											100.0
	Under \$2	73	6.78											101.3	2.92											95.1
	\$2 to \$4	121	6.83											97.4	2.78											91.7
	\$4 to \$6	49	6.83											109.4	3.25											107.3
	\$6 & over	39	7.77											116.5	3.53											116.5
Under \$20	Total (Average)	17	5.64											84.6	1.28											42.2
	Under \$2	7	6.82											102.2	1.02											53.6
	\$2 to \$4	8	4.55											66.2	0.93											30.7
	\$4 to \$6	1	4.62											72.3	0.98											31.7
	\$6 & over	1	6.12											91.9	1.97											66.0
\$20 to \$40	Total (Average)	153	7.05											105.7	2.94											97.0
	Under \$2	48	7.12											108.7	2.97											98.0
	\$2 to \$4	62	6.20											93.0	2.70											89.1
	\$4 to \$6	27	6.89											103.3	3.13											103.3
	\$6 & over	16	9.15											122.2	3.02											99.7
\$40 & over	Total (Average)	112	6.07											91.0	4.34											143.2
	Under \$2	18	4.47											87.0	3.19											105.3
	\$2 to \$4	51	5.62											84.3	3.75											123.9
	\$4 to \$6	21	7.72											119.7	6.15											170.0
	\$6 & over	22	6.71											100.6	5.16											170.3

Average \$6.07

Average \$3.03

terms of sales per stock turnover when fixture investments in relation to sales are kept at a minimum.

D.—Summary.

- (1). For stores of a given size and with a given amount invested in fixtures per \$100 of total net sales, the amounts of wages and salaries per \$100 of total net sales tend generally to decrease from year to year. The direction of change is un-

certain for wages and salaries per \$100 of selling expense.

- (2). When the stores are classified by size, the amounts of wages and salaries per \$100 of total net sales tend to increase as the amounts of investment in fixtures per \$100 of total net sales increase.
- (3). When stores are classified by size, the amounts of wages and salaries per \$100 of sell-

ing expense tend neither to increase nor to decrease as the investments in fixtures in terms of sales increase.

- (4). For stores with a given amount of inventory per \$100 of total net sales, the amounts of wages and salaries in terms of sales alone, increase as the investments in fixtures in terms of sales increase. Moreover, the amounts of wages and salaries per \$100 of total net sales per stock turnover increase as the fixture investments in terms of sales increase.

(3)—YEARLY AMOUNTS OF WAGES AND SALARIES IN RELATION TO INVESTMENTS IN FIXTURES PER 100 SQUARE FEET OF FLOOR SPACE.

In the foregoing discussion, stores have been classified by the amounts invested in fixtures per \$100 of total net sales. In this section the stores are classified by the amounts invested in fixtures per 100 square feet of floor space.

A.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size, 1919.

The records of 303 stores are available for study in order to determine the amounts of wages and salaries per \$100 of total net sales and per \$100 of total net sales for the amounts sold per square foot of floor space for

stores classified by size and by the amounts invested in fixtures per 100 square feet of floor space. The classification of stores in this form is contained in Table 203.

For stores of the same size, but with varying amounts of fixture investments in relation to floor space, the amounts of wages and salaries per \$100 of total net sales on the whole tend to increase with the investment in fixtures measured in this form. There are exceptions to this rule, but on the whole the same tendency which was encountered for selling expense obtains for wages and salaries. When the amounts of wages and salaries, however, are expressed in terms of sales for the amount sold per square foot of floor space, they decrease generally with the investment in fixtures per 100 square feet of floor space. That is, the high cost in wages and salaries in relation to sales which accompanies large investment in fixtures per unit of floor space are compensated for by the amounts sold. The disadvantage which accrues to the stores with large fixture investments is in fact an advantage in terms of the use to which the space is put. In view of the discussion of selling expense, pages 164 to 170, it is unnecessary further to consider wages and salaries for stores classified in this form.

In Table 204 the amounts of sales for each \$100 of wages and salaries paid are shown for stores classified as in Table 203. As the stores increase in size, relatively smaller sales are secured for a given amount of wages

TABLE 203

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER SALES PER
 SQUARE FOOT OF FLOOR SPACE, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT
 OF FIXTURE ACCOUNT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Classified Total Net Sales ^a (in 000's)	Amount of Fixture Account per 100 sq. ft. of Floor Space	Number of Stores	Wages and Salaries per \$100 of Total Net Sales										Wages and Salaries per \$100 of Total Net Sales per Salee per Square Foot of Floor Space																						
			Amount	Per Cent.										Amount	Per Cent.																				
				Graphic											Actual	Graphic																			
				0	20	40	60	80	100	120	140	Actual	0	20		40	60	80	100	120	140	Actual													
Total (Average)	Total (Average)	503	\$6.54											100.0	\$0.26											100.0									
	Under \$40	74	6.01											91.9	0.34											130.6									
	\$40 to \$80	105	6.50											99.4	0.30											115.4									
	\$80 to \$120	63	6.56											100.3	0.24											92.3									
	\$120 & over	61	6.83											104.4	0.19											73.1									
Under \$40	Total (Average)	45	4.48											68.5	0.31											119.2									
	Under \$40	11	3.59											54.9	0.37											142.3									
	\$40 to \$80	24	4.62											70.6	0.30											115.4									
	\$80 to \$120	3	6.30											96.3	0.44											169.2*									
	\$120 & over	7	4.45											68.0	0.19											73.1									
\$40 to \$80	Total (Average)	113	5.09											77.8	0.27											105.6									
	Under \$40	33	4.71											72.0	0.32											123.1									
	\$40 to \$80	42	4.54											69.4	0.23											86.5									
	\$80 to \$120	23	5.49											83.9	0.23											86.5									
	\$120 & over	15	6.82											104.3	0.37											142.3									
\$80 to \$120	Total (Average)	102	6.54											100.0	0.28											107.7									
	Under \$40	22	6.57											100.5	0.36											136.5									
	\$40 to \$80	33	6.72											102.6	0.30											115.4									
	\$80 to \$120	29	6.50											99.4	0.25											96.2									
	\$120 & over	18	6.75											95.6	0.19											73.1									
\$120 & over	Total (Average)	43	7.30											121.6	0.21											80.8									
	Under \$40	6	6.83											104.4	0.29											111.5									
	\$40 to \$80	6	9.11											139.3	0.31											119.2									
	\$80 to \$120	8	7.29											111.5	0.21											80.8									
	\$120 & over	21	7.02											107.3	0.17											65.4									
Average \$6.54																		Average \$0.26																	

Average \$6.54

Average \$0.26

^aFull length not shown

and salaries paid. Moreover, for stores of the same size, but with different investments in fixtures in relation to floor space, the amounts of sales secured for each \$100 of wages and salaries decrease as the fixture investments increase. The amounts

secured for a given wage payment are shown in Table 204, and the relationship obtaining between them may be observed by consulting the graphic part of the table.

In Table 205 the amounts of wages and salaries are expressed, first, in

terms of selling expense, and second, in terms of selling expense for the amounts sold per square foot of floor space.* The basis of classification for the stores is the same as in Tables 203

*The method by which this unit is computed is explained on page 4, item 26.

and 204. Moreover, the same stores are used for purposes of analysis. Within each group, when classified by size, the details show that there is no general tendency for the amounts either to increase or to decrease as the fixture investments in relation to

TABLE 204

WAGES AND SALARIES, TOTAL NET SALES, AND AMOUNT OF TOTAL NET SALES PER \$100 OF WAGES AND SALARIES, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per 100 sq. ft. of Floor Space	Number of Stores	Total Wages & Salaries	Total Net Sales	Total Net Sales per \$100 of Wages and Salaries										
					Amount	Per Cent.									Actual
						Graphic									
						0	20	40	60	80	100	120	140	160	
Total (Average)	Total (Average)	303	\$2,367,501	\$56,125,718	\$1,529										100.0
	Under \$40	74	409,649	6,814,481	1,663										108.8
	\$40 to \$80	105	595,111	9,151,357	1,538										100.6
	\$80 to \$120	63	466,200	7,104,069	1,524										99.7
	\$120 & over	61	896,541	13,123,611	1,464										95.7
Under \$40	Total (Average)	45	62,748	1,399,886	2,231										146.9
	Under \$40	11	10,669	297,453	2,788										182.3
	\$40 to \$80	24	35,769	773,554	2,163										141.5
	\$80 to \$120	3	5,718	90,727	1,587										103.8
	\$120 & over	7	10,592	236,150	2,248										147.0
\$40 to \$80	Total (Average)	113	330,557	6,500,336	1,966										128.6
	Under \$40	33	87,991	1,867,728	2,123										138.8
	\$40 to \$80	42	108,795	2,396,605	2,205										144.2
	\$80 to \$120	23	76,467	1,393,751	1,823										119.2
	\$120 & over	15	57,314	840,252	1,466										95.9
\$80 to \$120	Total (Average)	102	784,290	11,966,362	1,528										99.9
	Under \$40	22	167,538	2,548,246	1,521										99.5
	\$40 to \$80	33	265,530	3,949,140	1,487										97.3
	\$80 to \$120	29	211,240	3,250,636	1,539										100.7
	\$120 & over	18	139,982	2,236,340	1,599										104.6
\$120 & over	Total (Average)	43	1,189,906	16,307,134	1,370										89.6
	Under \$40	8	143,461	2,101,052	1,465										95.8
	\$40 to \$80	6	185,017	2,030,058	1,097										71.7
	\$80 to \$120	8	172,775	2,368,955	1,371										89.7
	\$120 & over	21	688,653	9,307,069	1,424										93.1

Average \$1,540

TABLE 205

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER SALES PER
 SQUARE FOOT OF FLOOR SPACE, FOR STORES CLASSIFIED BY SIZE AND
 BY AMOUNT OF FIXTURE ACCOUNT PER 100 SQUARE
 FEET OF FLOOR SPACE, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per 100 sq. ft. of Floor Space	Number of Stores	Wages and Salaries per \$100 of Selling Expense										Wages and Salaries per \$100 of Selling Expense per Sales per Square Foot of Floor Space													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
			Amount	0	20	40	60	80	100	120	140	Actual	Amount	0	20	40	60	80	100	120	140	160	180	200	Actual	
Total (Average)	Total (Average)	505	\$65.85											100.0	\$2.59											100.0
	Under \$40	74	70.58											107.2	4.00											154.4
	\$40 to \$80	105	68.17											105.5	3.10											119.7
	\$80 to \$120	63	67.85											103.0	2.49											96.1
	\$120 & over	61	61.62											95.6	1.69											65.3
Under \$40	Total (Average)	45	69.37											105.3	4.84											186.9
	Under \$40	11	64.68											98.2	6.61											255.2 ^a
	\$40 to \$80	24	71.14											109.0	4.67											180.3
	\$80 to \$120	3	85.24											129.4	6.92											229.6 ^a
	\$120 & over	7	62.42											94.8	2.67											103.1
\$40 to \$80	Total (Average)	113	71.31											109.3	5.82											147.5
	Under \$40	33	69.64											105.8	4.66											179.9
	\$40 to \$80	42	70.61											107.2	3.50											135.1
	\$80 to \$120	23	70.31											106.8	2.97											114.7
	\$120 & over	15	77.04											117.0	4.14											159.8
\$80 to \$120	Total (Average)	102	66.79											101.4	2.85											110.0
	Under \$40	22	72.25											109.7	5.98											153.7
	\$40 to \$80	33	64.75											98.3	2.90											112.0
	\$80 to \$120	29	68.66											104.2	2.69											103.9
	\$120 & over	18	62.31											94.6	1.86											71.8
\$120 & over	Total (Average)	43	63.73											96.8	1.82											70.3
	Under \$40	8	69.73											105.9	5.00											115.8
	\$40 to \$80	6	71.58											108.7	2.46											95.0
	\$80 to \$120	8	65.49											99.5	1.89											73.0
	\$120 & over	21	60.46											91.8	1.46											56.4
Average \$65.95																										
Average \$2.59																										

Average \$65.85

Average \$2.59

^aFull length not shown

floor space increase. The actual amounts, however, are of interest because they establish the average conditions existing for 1919 for these groups of stores. When wages and salaries in their relation to selling expense are determined for the amounts sold per square foot of floor space, they decrease as the amounts invested

in fixtures increase. There are certain exceptions to this rule, but on the whole it obtains with rather more striking regularity than might be expected. The actual amounts and their relation to each other for the stores as classified may be seen by consulting the table.

B.—Summary.

- (1). Wages and salaries in terms of sales alone are relatively high for stores having large investments in fixtures per 100 square feet of floor space.
- (2). The amounts are relatively low, however, when they are expressed in terms of sales for the amounts sold per unit of floor space.
- (3). The amounts of wages and salaries as proportionate parts of selling expense tend neither to increase nor to decrease generally for stores with increasing amounts invested in fixtures per unit of floor space.
- (4). When the amounts are expressed in terms of selling expense for the amounts sold on each unit of floor space, they decrease as fixture investment, similarly measured, increase, thus suggesting the practical conclusion that high fixture investments in relation to floor space operate to diminish relatively the amounts which wages and salaries constitute of total selling expense.

5. YEARLY AMOUNTS OF WAGES AND SALARIES IN RELATION TO EXPENDITURES FOR ADVERTISING FOR STORES CLASSIFIED BY SIZE, BY LOCATION, AND BY RATES OF STOCK TURN-OVER.

The order of the discussion of the amounts of total selling expense, for

stores classified by amounts of advertising, is followed closely in the treatment of wages and salaries per \$100 of total net sales and per \$100 of selling expense for stores similarly classified.

A.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size, 1919.

In the analysis of the amounts of wages and salaries per \$100 of total net sales and per \$100 of selling expense, the records of 282 stores for 1919 are available for study. The stores are classified by size and by the amounts of advertising expenditure per \$100 of total net sales.

In Table 206 the amounts are expressed first, in terms of sales, and second, in terms of sales per stock turnover.* For the 282 stores it cost \$6.67 in wages and salaries to sell \$100 worth of goods. For the 79 stores which spent in advertising less than \$1 per \$100 of total net sales, the corresponding cost was \$5.93. From this amount as a minimum, the costs increase to \$7.57 for the 66 stores which spent between \$2 and \$3 in advertising per \$100 of total net sales. For those which spent more than this amount, treated as a total, the cost was \$6.61. As the stores increase in size, the amounts of wages and salaries per \$100 of total net sales increase. This condition holds not only for the stores treated as totals,

* The method by which this unit is derived is explained on page 4, item 20.

but for stores when classified by the amounts expended for advertising per \$100 of total net sales. The increase in the latter respect is in some instances irregular, due primarily to the small number of stores involved.

When the amounts of wages and salaries for the stores as classified are measured in terms of sales per stock turnover, the average for the entire group is \$3.03. For those which spent under \$1 in advertising per \$100 of total net sales, it is \$2.82, and from this amount as a minimum the amounts increase to \$3.29 for the 66 stores which spent in advertising per \$100 of total net sales, between \$2 and \$3. For those that spent \$3 and over, the corresponding cost is \$2.75. For each group of stores classified by size, the amounts of wages and salaries per \$100 of total net sales per stock turnover increase as the amounts spent in advertising per \$100 of total net sales increase. There are some exceptions to this rule, however, the size and nature being shown in actual amounts and in graphic form in the columns of the table under this caption.

Attention has already been called to the fact that wages and salaries per \$100 of total net sales per stock turnover increase as stores increase in size for the stores selling less than \$180,000 annually, and decrease for those selling in excess of \$180,000. It is unnecessary from this point of view to discuss Table 206.

In Table 207 the same 282 stores are classified as in Table 206, but the amounts of wages and salaries are ex-

pressed in terms, first, of selling expense, and second, in terms of selling expense per stock turnover. For the entire group treated as a whole, wages and salaries constitute \$65.67, or roughly two-thirds of each \$100 of selling expense. As the stores increase in size the amounts decrease, the range being from \$71.92 for stores with sales of \$40,000 to \$80,000 to \$62.93 for stores with sales of \$180,000 and over. Within each group of stores and for the total, the amounts spent for wages and salaries, measured in terms of selling expense, decrease as the amounts of expenditure for advertising in terms of sales increase. This condition is to be expected in view of the fact that wages and salaries and advertising, combined, constitute, on the average, approximately 88 per cent. of selling expense. It will be noted, however, that the amounts of advertising are expressed in sales, while wages and salaries are measured in terms of selling expense. It is unnecessary to indicate the actual amounts for each group of stores in view of the fact that these are set out both in tabular and in graphic form in Table 207.

Wages and salaries are also expressed in Table 207 in terms of \$100 of selling expense per stock turnover. As stores increase in size, the amounts decrease from \$47.39 as a maximum for stores with sales less than \$40,000, to \$22.48 for those with sales of \$180,000 and over. The decrease is much more noticeable when wages and salaries are expressed in this form than when measured in terms of selling

TABLE 206

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER STOCK TURN-OVER, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Wages and Salaries per \$100 of Total Net Sales										Wages and Salaries per \$100 of Total Net Sales per Stock Turnover													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Actual	Graphic										Actual
				0	20	40	60	80	100	120	140	0	20	40		60	80	100	120	140						
Total (Average)	Total (Average)	282	\$6.67											100.0	\$3.03											100.0
	Under \$1	79	5.93											88.9	2.82											93.1
	\$1 to \$2	100	6.12											91.8	3.06											101.0
	\$2 to \$3	66	7.57											113.5	3.29											108.6
	\$3 & over	37	6.61											99.1	2.75											90.8
Under \$40	Total (Average)	33	4.26											63.9	2.84											93.7
	Under \$1	15	3.79											56.8	2.23											73.6
	\$1 to \$2	14	5.39											80.8	4.15											137.0
	\$2 to \$3	2	1.62											24.3	0.70											23.1
	\$3 & over	2	3.35											50.2	2.58											85.1
\$40 to \$80	Total (Average)	106	5.36											80.4	2.96											96.3
	Under \$1	43	4.58											66.7	2.54											83.8
	\$1 to \$2	37	5.25											78.9	3.09											102.0
	\$2 to \$3	20	6.14											92.1	3.41											112.5
	\$3 & over	6	8.57											128.5	5.04											166.3*
\$80 to \$180	Total (Average)	98	6.85											102.7	3.61											119.1
	Under \$1	18	7.44											111.5	3.54											116.8
	\$1 to \$2	39	6.07											91.0	3.04											100.3
	\$2 to \$3	26	7.24											108.5	3.81											125.7
	\$3 & over	15	7.39											110.8	4.11											135.6
\$180 & over	Total (Average)	45	7.15											107.2	2.55											84.2
	Under \$1	3	7.27											109.0	2.20											72.6
	\$1 to \$2	10	6.88											103.1	2.65											87.5
	\$2 to \$3	18	8.03											120.4	2.97											98.0
	\$3 & over	14	6.29											94.3	2.25											74.3

Average \$6.67

Average \$3.03

* Full length not shown

expense alone. This, of course, follows as a result of the increased rates at which stocks are turned as stores increase in size.

Tables 206 and 207 should be interpreted with the following facts in mind: First, the amounts of wages

and salaries per \$100 of total net sales increase as stores increase in size. Second, wages and salaries per \$100 of selling expense decrease as stores increase in size. Third, amounts of advertising per \$100 of total net sales increase as stores increase in

size. Fourth, the rates at which stock is turned increase with the increased size of stores. The figures in these tables constitute standards or norms of expense distribution for the stores considered, and are of value to merchants in measuring the relative positions of their own stores when classified in the form used.

B.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size of City in Which Located, 1919.*

In Tables 208 and 209, the same 282 stores which are used in Tables

* Population figures are for 1920.

TABLE 207

WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Wages and Salaries per \$100 of Selling Expense							Wages and Salaries per \$100 of Selling Expense per Stock Turnover												
			Amount	Per Cent.						Actual	Amount	Per Cent.									Actual	
				Graphic								Graphic										
				0	20	40	60	80	100	120		140	0	20	40	60	80	100	120	140	160	180
Total (Average)	Total (Average)	282	\$65.67								100.0	\$29.85										100.0
	Under \$1	79	83.87								127.7	39.94										135.6
	\$1 to \$2	100	72.42								110.3	36.21										121.3
	\$2 to \$3	66	65.16								99.2	28.53										94.9
	\$3 & over	37	53.51								81.5	22.50										74.7
Under \$40	Total (Average)	33	71.09								108.2	47.39										158.6
	Under \$1	15	75.61								115.1	44.48										149.0
	\$1 to \$2	14	75.71								115.3	58.24										195.1
	\$2 to \$3	2	50.73								46.8	13.36										44.0
	\$3 & over	2	47.13								71.8	36.25										121.4
\$40 to \$80	Total (Average)	106	71.92								109.5	39.26										133.9
	Under \$1	43	79.37								120.6	44.09										147.7
	\$1 to \$2	37	71.64								109.1	42.14										141.2
	\$2 to \$3	20	65.92								100.4	36.62										122.7
	\$3 & over	6	64.73								98.6	38.08										127.6
\$80 to \$100	Total (Average)	90	67.45								102.7	35.50										118.9
	Under \$1	18	85.13								129.7	40.55										135.9
	\$1 to \$2	39	71.66								109.1	35.84										120.1
	\$2 to \$3	26	62.26								94.8	32.77										109.8
	\$3 & over	15	56.55								86.1	31.42										105.3
\$100 & over	Total (Average)	45	62.93								95.8	22.48										75.3
	Under \$1	3	91.78								139.7	27.81										93.2
	\$1 to \$2	10	73.49								111.9	28.27										94.7
	\$2 to \$3	18	66.55								101.3	24.65										82.6
	\$3 & over	14	51.87								79.0	16.53										62.1

Average \$65.67

Average \$29.85

206 and 207 are classified, irrespective of size, by location and by the amounts spent for advertising per \$100 of total net sales. A moment's consideration of them is of interest. As shown in Table 208, it cost on the average in wages and salaries \$6.12 to sell \$100 worth of goods in the stores in small cities. For the 78 stores in the large cities, the corresponding cost was \$7.17. For the stores in the small cities the amounts increase as the amounts spent for advertising per \$100 of total net sales increase. Regularity of change, however, for the stores in the large cities does not hold. When stores in the

two locations having the same amount of expenditure for advertising per \$100 of total net sales are compared, the amounts, in every case except one, are lower for the stores in the small than for those in the large cities. It will be remembered, however, in comparing these figures that store-size is ignored. It cannot, however, be forgotten in assigning significance to this fact. On the whole, the stores in the small, are smaller on the average than those in the large cities, and undoubtedly this explains in part the difference in the amounts of wages and salaries per \$100 of total net sales.

TABLE 208

AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919

Size of City (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Wages and Salaries per \$100 of Total Net Sales							Wages and Salaries per \$100 of Total Net Sales per Stock Turnover										
			Amount	Per Cent.						Amount	Per Cent.					Actual				
				Graphic							Graphic									
				0	20	40	60	80	100	120	140	0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	282	\$6.67								100.0	\$3.03								100.0
	Under \$1	79	5.93								88.9	2.82								93.1
	\$1 to \$2	100	6.12								91.8	3.06								101.0
	\$2 to \$3	66	7.57								113.5	3.29								108.6
	\$3 & over	37	6.61								99.1	2.75								90.8
Under 40	Total (Average)	204	6.12								91.8	3.22								106.3
	Under \$1	72	5.61								84.1	2.81								92.7
	\$1 to \$2	79	6.08								91.2	3.38								111.6
	\$2 to \$3	39	6.59								98.8	3.66								120.8
	\$3 & over	14	6.86								102.8	4.04								113.3
40 and over	Total (Average)	78	7.17								107.5	2.76								91.1
	Under \$1	7	7.84								117.5	3.14								103.6
	\$1 to \$2	21	6.21								93.1	2.48								81.8
	\$2 to \$3	27	8.15								122.2	3.13								103.3
	\$3 & over	23	6.57								96.5	2.53								83.5
			Average \$6.67														Average \$3.03			

TABLE 209

AMOUNT OF WAGES AND SALARIES PER \$100 OF SELLING EXPENSE PER STOCK TURN-OVER, FOR STORES CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919

Size of City, '19	Amount of Advertising per \$100 of Net Sales	Number of Stores	Wages and Salaries per \$100 of Selling Expense										Wages and Salaries per \$100 of Selling Expense per Stock Turnover											
			Amount	Per Cent.										Amount	Per Cent.									
				Graphic											Graphic									
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	Actual			
Total (Average)	Total (Average)	282	\$55.67											100.0	329.85									100.0
	Under \$1	79	83.97											139.7	39.94									133.8
	\$1 to \$2	100	72.42											110.3	36.21									121.3
	\$2 to \$3	66	65.16											99.2	28.33									94.9
	\$3 & over	37	53.51											81.5	22.30									74.7
Under 40	Total (Average)	204	71.09											108.3	37.42									125.4
	Under \$1	72	80.50											125.6	41.25									138.2
	\$1 to \$2	79	73.52											112.0	40.94									136.8
	\$2 to \$3	39	63.51											96.7	35.28									118.2
	\$3 & over	14	57.43											87.5	33.78									113.2
40 and over	Total (Average)	78	62.03											94.5	23.96									79.9
	Under \$1	7	86.15											131.2	34.46									115.4
	\$1 to \$2	21	70.51											107.4	28.20									94.5
	\$2 to \$3	27	65.96											100.5	25.38									85.0
	\$3 & over	23	52.90											80.6	20.35									68.2
			Average \$65.67										Average \$29.65											

When wages and salaries are expressed in terms of sales per stock turnover, as in Table 208, the average cost is higher for the 204 stores in the small than for the 78 in the large cities. Moreover, the same condition holds for three of the four groups of stores differently located, but with similar expenditures for advertising per \$100 of total net sales. This fact is undoubtedly attributable in large part to the more rapid turns which characterize the stores in the large cities. The figures are submitted for what they are worth as showing the conditions which obtain. They must, however, be interpreted in the light

of the conditions named for Tables 206 and 207.

In Table 209, wages and salaries are expressed in terms of selling expense for the 282 stores classified as in Table 208. For the 204 stores located in the small cities, wages and salaries constituted \$71.09 of every \$100 of selling expense; for the 78 stores in the large cities the amount was \$62.03. That is, wages and salaries are a relatively smaller proportion of selling expense for stores in large than for stores in the small cities. When stores of different location, but with the same expenditures for advertising per \$100 of total net

sales, are compared, the amounts are lower for two and higher for two groups of stores located in the small than for those located in the large cities. The average for the entire group, therefore, must be considered in the light of these divergent tendencies. The size of stores is undoubtedly of significance in determining the actual amounts involved.

When wages and salaries are expressed in terms of selling expense per stock turnover, the averages for the stores in the two city-groups are not only lower than when they are expressed in selling expense alone, but are in the inverse order so far as size is concerned. The amount for the 204 stores in the small cities is \$37.42, and for the 78 in the large cities, \$23.86. Moreover, the amounts are larger for the stores in the small cities than for those in the large cities when classified by expenditures for advertising per \$100 of total net sales. This condition is due not so much to the absolute difference in wages and salaries as a part of selling expense, as to the relative rapidity with which stock is turned in stores with different locations. Here again the actual amounts are of interest inasmuch as they constitute the norms of expense distribution found in these stores.

C.—Yearly Amounts of Wages and Salaries per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Rates of Stock Turnover, 1919.

In Tables 210 and 211, respectively, wages and salaries are expressed in

terms of sales and of selling expense for stores classified by rates of stock turnover and by expenditures for advertising per \$100 of total net sales. The body of Table 210 is of interest. For the 145 stores that turned their stock less than twice, it cost in wages and salaries \$6.54 to sell \$100 worth of goods. For those which turned their stock between two and three times, and three times and over, the corresponding costs, respectively, were \$6.84 and \$6.51. That is, the average amount was highest for the stores turning their stock between two and three times. For the other two groups the amounts are essentially constant.

Interest in the table lies quite as much in the amounts spent for advertising as in the rates at which stock is turned in 1919. The order of the table makes it possible to compare the amounts of wages and salaries per \$100 of total net sales for stores having given rates of stock turnover, but with different amounts spent for advertising per \$100 of total net sales. Without specifying in detail each of the various average amounts, it is of interest to observe that the amounts of wages and salaries per \$100 of total net sales increase with the expenditures for advertising per \$100 of total net sales for the stores which turned their stock less than two times. A corresponding increase, except for one group of stores, also holds for those which turned their stock between two and three times. For the 37 stores with stock turnover rates of three and over, the amounts are ir-





















regular and the direction of change uncertain.

In interpreting Table 210, it should be remembered that store-size, as such, is not used as a basis of classification, although generally it may be said that the more rapidly stocks are

turned and the greater the amounts spent for advertising in relation to sales, the larger the store. Accordingly, the tendency for the amounts of wages and salaries per \$100 of total net sales generally to increase with expenditures for advertising in

TABLE 210

TOTAL NET SALES, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES PER \$100 OF TOTAL NET SALES, FOR STORES CLASSIFIED BY RATES OF STOCK TURNOVER AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919

Rates of Stock Turnover	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Wages & Salaries	Wages and Salaries per \$100 of Total Net Sales							
					Amount	Per Cent.						
						Graphic						Actual
						0	20	40	60	80	100	
Total (Average)	Total (Average)	282	\$35,563,014	\$2,371,762	\$6.67							100.0
	Under \$1	79	5,955,248	353,380	5.93							88.9
	\$1 to \$2	100	9,843,487	602,877	6.12							91.8
	\$2 to \$3	66	11,364,997	860,553	7.57							113.5
	\$3 & over	37	8,399,284	554,952	6.61							99.1
Under 2	Total (Average)	143	11,611,884	759,775	6.54							98.1
	Under \$1	44	2,705,695	156,834	5.80							87.0
	\$1 to \$2	55	4,040,683	258,437	6.40							96.0
	\$2 to \$3	29	3,267,234	221,601	6.78							101.6
	\$3 & over	17	1,598,272	122,903	7.69							115.3
2 to 3	Total (Average)	100	15,987,018	1,093,660	6.84							102.5
	Under \$1	22	1,465,134	82,210	5.61							84.1
	\$1 to \$2	37	4,277,216	281,771	6.59							96.8
	\$2 to \$3	26	5,341,954	424,271	7.94							119.0
	\$3 & over	15	4,902,714	305,408	6.23							93.4
3 & over	Total (Average)	37	7,964,112	518,327	6.51							97.6
	Under \$1	13	1,784,417	114,336	6.41							96.1
	\$1 to \$2	8	1,525,588	62,669	4.11							61.6
	\$2 to \$3	11	2,755,909	214,681	7.79							116.8
	\$3 & over	5	1,898,298	126,641	6.67							100.0

Average \$6.67

TABLE 211

TOTAL SELLING EXPENSE, WAGES AND SALARIES, AND AMOUNT OF WAGES AND SALARIES
PER \$100 OF SELLING EXPENSE, FOR STORES CLASSIFIED BY RATES
OF STOCK TURNOVER AND BY AMOUNT OF ADVERTISING
PER \$100 OF TOTAL NET SALES, 1919

Rates of Stock Turnover	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Wages & Salaries	Wages and Salaries per \$100 of Selling Expense									
					Amount	Per Cent.								Actual
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	282	\$3,611,688	\$2,371,762	\$65.67									100.0
	Under \$1	79	421,324	353,380	83.87									127.7
	\$1 to \$2	100	832,475	602,877	72.42									110.9
	\$2 to \$3	66	1,320,718	860,553	65.16									99.2
	\$3 & over	37	1,037,171	554,952	53.51									81.5
Under 2	Total (Average)	145	1,103,147	759,775	68.87									104.9
	Under \$1	44	190,347	156,834	82.39									125.5
	\$1 to \$2	65	345,623	258,437	74.77									113.9
	\$2 to \$3	29	356,165	221,601	62.22									94.7
	\$3 & over	17	211,012	122,903	58.24									88.7
2 to 3	Total (Average)	100	1,694,831	1,093,660	64.54									98.3
	Under \$1	22	99,888	82,210	82.30									125.3
	\$1 to \$2	37	387,951	281,771	72.63									110.8
	\$2 to \$3	26	629,697	424,271	67.38									102.6
	\$3 & over	15	577,095	305,408	52.92									80.6
3 & over	Total (Average)	37	813,910	518,327	63.68									97.0
	Under \$1	13	131,089	114,336	87.22									132.8
	\$1 to \$2	8	98,901	62,669	63.37									96.5
	\$2 to \$3	11	334,856	214,681	64.11									97.6
	\$3 & over	5	249,064	126,641	50.85									77.4

Average \$65.67

terms of sales is explained in part by the size of the stores. In spite of this limitation of the data, the actual amounts are of interest in themselves.

In Table 211 the basis of classification is the same as in Table 210, the amounts of wages and salaries, how-

ever, being expressed in terms of selling expense. For the stores which turned their stock less than twice, the amount which wages and salaries constitute of every \$100 of selling expense is \$68.87. The corresponding amounts for those which turned their

stock between two and three times, and three times and over, are \$64.54 and \$63.68, respectively. That is, the amounts decrease as the rates of stock turnover increase.

For each group of stores classified by rates of stock turnover, the details of the table make it possible to compare the amounts of wages and salaries per \$100 of selling expense for stores spending different amounts for advertising in relation to sales. The basis of classification of wages and salaries is the relation which they bear to selling expense, while that of advertising is the relation which it bears to sales. Advertising, however, constitutes a part of selling expense as do also wages and salaries. Accordingly, with this form of classification, it is to be expected that the amounts of wages and salaries per \$100 of selling expense will decrease with the increase in advertising expenditure per \$100 of total net sales. Such a decrease characterizes each group of stores when classified by rates of stock turnover. The extreme differences are most noticeable in stores which turned their stock most rapidly. It is unnecessary to indicate for each group of stores the actual size of these amounts or the relative rates at which they decrease. Such comparisons may be made by the reader if he is interested.

In Tables 208 to 211, inclusive, store size is ignored in the classification. The data should be interpreted with this fact in mind, inasmuch as the amounts of wages and salaries, in relation to selling expense,

seem to be determined by the size of stores, by the rates at which stock is turned, and by the amount expended for advertising in relation to sales.

D.—Summary.

- (1). The amounts of wages and salaries per \$100 of total net sales and per \$100 of total net sales per stock turnover, increase as the expenditures for advertising in terms of sales increase. This holds for all stores and for stores of a given size.
- (2). For stores with a given amount of advertising expenditure in terms of sales, the amounts of wages and salaries, measured in terms of sales alone, increase as stores increase in size. The amounts in terms of both sales and stock turnover increase with the size of the stores for those having annual sales of less than \$180,000, and decrease for those having sales in excess of this amount.
- (3). The amounts of wages and salaries per \$100 of selling expense, and per \$100 of selling expense per stock turnover, decrease as the amounts of advertising in terms of sales increase, and also as the size of the stores increases.
- (4). For stores with a given amount of advertising expenditure per \$100 of total net

sales, wages and salaries in terms of sales alone are higher in the large than in small cities, while in terms of sales per stock turnover they are lower in large than in small cities.

- (5). For stores with a given amount of advertising expenditure per \$100 of total net sales, the proportions of selling expense attributable to wages and salaries tend to be neither higher nor lower in small than in large cities.

The amounts of wages and salaries per \$100 of selling expense per stock turnover are higher for stores in the small than for those in large cities.

- (6). When stores are classified by rates of stock turnover, the amounts of wages and salaries, when expressed in terms of sales, increase and in terms of selling expense, decrease as the amounts of advertising per \$100 of total net sales increase.

V. EXPENDITURES FOR ADVERTISING

1.—EXPENDITURES FOR ADVERTISING FOR STORES CLASSIFIED BY YEARS, BY SIZE AND BY LOCATION.

The expression, "expenditures for advertising," includes all the money spent for advertising, as such, as well as the salaries of window trimmers and advertising men. In the small stores where such employees do not give their full time to advertising or to window trimming, the compensation paid to them is included in wages and salaries. Moreover, in establishments having window trimmers and advertising men, all forms of compensation paid to them are included in advertising in spite of the fact that occasionally they may have devoted part of their time to selling. In interpreting the following data, these facts should be kept in mind. They may help to explain in part some of the

differences in the amounts of advertising expenditure for stores of different size.*

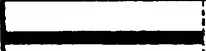



A.—Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales and per \$100 of Selling Expense, 1919, 1918, and 1914.

The records of 154 identical stores for the years 1919, 1918, and 1914 are available for the study of the amounts of expenditure for advertising chargeable to selling. In Table 212, these amounts are expressed in terms of sales. For the three years combined, the expenditure for advertising per \$100 of total net sales was \$2.30. In

* It should be noted that "advertising" as used herein differs in some respects from the corresponding item in the Bureau's study, *Costs, Merchandising Practices, Advertising, and Sales in the Retail Distribution of Clothing*, Volume V.

TABLE 212

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL
NET SALES, FOR 154 IDENTICAL STORES, 1919, 1918, AND 1914

Years	Number of Store- years	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales								
				Amount	Per Cent.							
					Graphic						Actual	
				0	20	40	60	80	100	120		
Total (Average)	462	\$44,835,499	\$1,030,669	\$2.30							100.0	
1919	154	20,892,764	463,940	2.22							96.5	
1918	154	14,714,515	326,047	2.22							96.5	
1914	154	9,228,220	240,682	2.61							113.5	
Average \$2.30												

1914 the corresponding amount was \$2.61, in 1918, \$2.22, and in 1919, \$2.22. That is, there was a decrease between 1914 and 1918, but between 1918 and 1919 the amounts remained constant.

In Table 213 the amounts of advertising expenditures per store and sales per store are set out for 154 stores so as to show relatively the rates at which both items increased in 1918 and 1919 as compared with 1914. The table also shows the rela-

age increases in both items in 1918 and 1919 over 1914. Selling expense increased 106 per cent., and advertising expenditures, 92.8 per cent., between 1914 and 1919. Smaller increases in both elements of expense occurred between 1914 and 1918. When the amounts of advertising expenditure are expressed per \$100 of selling expense, they decreased 10.8 per cent. between 1914 and 1918 and 6.4 per cent. between 1914 and 1919.

TABLE 213

AVERAGE AMOUNT AND PER CENT. INCREASE OR DECREASE OF TOTAL NET SALES AND ADVERTISING PER STORE, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES, 1919, 1918, AND 1914

Years	Average Amount of Total Net Sales per Store							Average Amount of Advertising per Store							Average Amount of Advertising per \$100 of Total Net Sales												
	Amount	Per Cent. Increase over 1914							Amount	Per Cent. Increase over 1914							Amount	Per Cent. Decrease from 1914									
		Actual	Graphic							Actual	Graphic							Actual	Graphic								
			0	20	40	60	80	100			120	140	0	20	40	60			80	100	0	20	40	60	80	100	
1919	\$135,667	126.4								\$3,013	92.8								\$2.22	14.9							
1918	95,549	59.5								2,117	35.4								2.22	14.9							
1914	59,924									1,563									2.61								

tive decrease in the advertising expenditure in relation to sales in 1918 and 1919 as compared with 1914. For the stores in question, while sales increased 126.4 per cent. between 1914 and 1919, the amounts expended for advertising increased in the same period 92.8 per cent. When the advertising expenditures are expressed in terms of sales, the amounts in 1919 and 1918 were 14.9 per cent. lower than in 1914.

Table 214 shows the amounts of selling expense and advertising expenditure per store and the percent-

From Tables 212 to 214, inclusive, it may be concluded as follows: First, advertising expenditures per \$100 of total net sales for stores, irrespective of size, decreased between 1914 and 1918 and remained constant between 1918 and 1919 in spite of the fact that both sales and expenditures for advertising per store increased in each of the years as compared with 1914. Second, expenditures for advertising per \$100 of selling expense for stores, irrespective of size, decreased between 1914 and 1918, and increased between 1918 and 1919.

TABLE 214

AVERAGE AMOUNT AND PER CENT. INCREASE OR DECREASE OF SELLING EXPENSE AND ADVERTISING PER STORE, AND AVERAGE AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 154 IDENTICAL STORES, 1919, 1918, AND 1914

Years	Average Amount of Selling Expense per Store							Average Amount of Advertising per Store							Average Amount of Advertising per \$100 of Selling Expense									
	Amount	Per Cent. Increase over 1914						Amount	Per Cent. Increase over 1914						Amount	Per Cent. Decrease from 1914								
		Graphic							Graphic							Graphic								
		Actual	0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	Actual	0	20	40	60	80	100	
1919	\$14,169	106.0							\$3,013	92.8							\$21.26	6.4						
1918	10,452	51.9							2,117	55.4							20.26	10.8						
1914	6,879								1,565								22.72							

B.—Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores in 1919, 1918, and 1914, Classified by Size.

In Table 215, stores are classified by size and for each group the expenditures for advertising per \$100 of total net sales are shown for each of the different years under consideration. The total section of this table is the same as that shown in Table 212. For each group of stores, when classified by size, the amount of expenditure for advertising per \$100 of total net sales was less in 1918 than in 1914, and in each group, except that which includes stores with annual sales of \$180,000 and over, less in 1919 than in 1918.

In Table 216 the amounts of advertising expenditures per \$100 of selling expense are shown for the 154 stores in each of the years 1914, 1918, and 1919, as classified in Table 215. For the entire group, these expenditures decreased between 1914 and

1918, and increased between 1918 and 1919. When the stores are classified by size, for each group there was a decrease in the amounts between 1914 and 1918. Between 1918 and 1919 the amounts increased for two groups and decreased for two groups of stores.

*C.—Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores in 1919, 1918, and 1914, Classified by Size of City in Which Located.**

In Table 217, the 154 stores are classified by the size of the city in which they are located, two size-groups being used for this purpose. For the 115 stores located in the small cities, net sales per store were 109.4 per cent. higher and expenditures for advertising per store, 67.1 per cent. higher in 1919 than in 1914. Between 1914 and 1918, sales per store increased 49.4 per cent. and advertising

* Population figures are for 1920.

per store, 27.9 per cent. Accordingly, when the expenditures for advertising are expressed in terms of sales, there was a decrease of 14.1 per cent. in the amounts between 1914 and 1918, and of 19.9 per cent. between 1914 and 1919.

For the 39 stores located in the large cities, net sales increased between 1914 and 1919 by 144.6 per

cent., while advertising increased 110.5 per cent. Between 1914 and 1918 the sales for these stores increased 70.3 per cent., and the amounts of advertising, 40.7 per cent. When the advertising expenditures are expressed in terms of sales there was a decrease of 17.2 per cent. between 1914 and 1918, and of 13.8 per cent. between 1914 and 1919.

TABLE 215




















TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE, 1919, 1918, AND 1914

Classified Total Net Sales (in 000's)	Years	Number of Store-years	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales						
					Amount	Per Cent.					
						Graphic					Actual
						0	20	40	60	80 100 120 140 160	
Total (Average)	Total (Average)	462	\$44,835,469	\$1,030,669	\$2.30	<div></div>					100.0
	1919	154	20,692,764	453,940	2.22	<div></div>					96.5
	1918	154	14,714,515	326,047	2.22	<div></div>					96.5
	1914	154	9,228,220	240,662	2.61	<div></div>					113.5
Under \$40	Total (Average)	129	3,590,553	60,972	1.70	<div></div>					75.9
	1919	14	428,714	6,262	1.46	<div></div>					63.5
	1918	42	1,256,795	19,197	1.53	<div></div>					66.5
	1914	73	1,905,044	35,513	1.86	<div></div>					80.9
\$40 to \$80	Total (Average)	172	9,775,007	167,646	1.72	<div></div>					74.6
	1919	57	3,222,468	42,797	1.33	<div></div>					57.6
	1918	63	3,662,794	60,416	1.65	<div></div>					71.7
	1914	52	2,889,745	64,433	2.23	<div></div>					97.0
\$80 to \$120	Total (Average)	117	13,695,659	319,703	2.33	<div></div>					101.3
	1919	58	6,866,815	140,074	2.04	<div></div>					88.7
	1918	35	4,090,203	96,491	2.41	<div></div>					104.6
	1914	24	2,738,621	81,136	2.96	<div></div>					128.7
\$120 & over	Total (Average)	44	17,774,300	482,346	2.71	<div></div>					117.6
	1919	25	10,374,767	274,807	2.65	<div></div>					115.2
	1918	14	5,704,723	147,943	2.59	<div></div>					112.6
	1914	5	1,694,810	59,598	3.52	<div></div>					153.0

Average \$2.30

TABLE 216

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE, 1919, 1918, AND 1914

Classified Total Net Sales (in 000's)	Years	Number of Store- years	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense								
					Amount	Per Cent.							
						Graphic							Actual
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	462	\$4,851,112	\$1,030,669	\$21.25								100.0
	1919	154	2,182,027	463,940	21.26								100.0
	1918	154	1,609,671	326,047	20.26								95.3
	1914	154	1,059,414	240,682	22.72								106.9
Under \$40	Total (Average)	123	304,954	60,972	19.99								94.1
	1919	14	29,018	6,262	21.59								101.6
	1918	42	101,621	19,197	18.89								88.9
	1914	73	174,315	35,513	20.37								95.9
\$40 to \$80	Total (Average)	172	913,357	167,646	18.35								86.4
	1919	57	246,207	42,797	17.38								81.8
	1918	63	345,293	60,416	17.50								82.4
	1914	52	321,857	64,433	20.02								94.2
\$80 to \$180	Total (Average)	117	1,491,801	319,703	21.43								100.8
	1919	58	719,436	140,074	19.47								91.6
	1918	35	445,138	98,491	22.13								104.1
	1914	24	327,227	81,138	24.80								116.7
\$180 & over	Total (Average)	44	2,141,000	432,348	22.53								106.0
	1919	25	1,187,366	274,807	23.14								108.9
	1918	14	717,619	147,943	20.62								97.0
	1914	5	236,015	69,598	25.25								118.8

Average \$21.25

An inspection of this table shows that both sales and advertising expenditures increased more rapidly for the stores in the large than for those in the small cities, when the comparisons are made between 1914

and 1919, and 1914 and 1918. In spite of this fact, however, the decrease in the amounts of advertising expenditure per \$100 of total net sales between 1914 and 1919 was less in the stores in the large than in those

TABLE 217

RELATION OF ADVERTISING TO TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Stores	Net Sales			Advertising				
			Total	Average Amount per Store		Total	Average Amount per Store		Per \$100 of Total Net Sales	
				Amount	Per Cent. Increase over 1914		Amount	Per Cent. Increase over 1914	Amount	Per Cent. Decrease from 1914
Total (Average)	1919	154	\$20,892,764	\$135,667	126.4	\$463,940	\$3,013	92.8	\$2.22	14.9
	1918	154	14,714,515	95,549	59.5	326,047	2,117	35.4	2.22	14.9
	1914	154	9,228,220	59,924		240,682	1,563		2.61	
Under 40	1919	115	10,005,585	87,005	109.4	164,710	1,438	67.1	1.65	19.9
	1918	115	7,136,283	62,055	49.4	125,986	1,096	27.9	1.77	14.1
	1914	115	4,777,138	41,540		96,543	857		2.06	
40 and over	1919	39	10,887,179	279,158	144.6	299,230	7,673	110.5	2.75	13.8
	1918	39	7,578,232	194,814	70.3	200,061	5,130	40.7	2.64	17.2
	1914	39	4,451,082	114,130		142,139	3,645		3.19	

in the small cities. An inverse condition obtains for the stores in the two city-groups when 1918 is compared with 1914. No recognition is taken of store size in Table 217, the basis of comparison being identical stores with different locations. The influence of the size of store upon advertising expenditure is discussed later.

In Table 218, the 154 stores are classified as in Table 217. This table compares, from year to year, the amounts of selling expense and advertising for stores located in cities of different size. For the 115 stores located in the small cities, selling expense per store increased between 1914 and 1919 by 85.4 per cent., and between 1914 and 1918 by 40.8 per cent. The corresponding percentages of increase in advertising were 67.1 and 27.9, respectively. When the expenditures for advertising are expressed in terms of \$100 of selling

expense, the amounts decreased by 9.8 per cent. between 1914 and 1919 and by 9.1 per cent. between 1914 and 1918.

For the 39 stores in the large cities, the selling expense per store increased between 1914 and 1919 by 123.2 and between 1914 and 1918 by 61.3 per cent. The corresponding percentages of increase in the expenditures for advertising were, respectively, 110.5 and 40.7. When the advertising expenditures are expressed in terms of selling expense, the amounts decreased between 1914 and 1919 by 5.7, and between 1914 and 1918 by 12.8 per cent.

When the two groups of stores are compared, it is found that the percentages of increase in selling expense and advertising expenditure were greater for the stores located in the large cities. When the advertising expenditures are expressed in terms

of selling expense, however, the decrease is smaller between 1914 and 1919 for the stores in the large, than for those in the small cities. An inverse condition holds for the decreases between 1914 and 1918.

In Table 219 the 154 stores are classified by years and by location, the purpose being to show, in each of the years, the relative amounts of advertising expenditures per \$100 of total net sales for the stores as located. For the stores in the combined years the average amount expended for advertising in relation to sales by the stores in the small cities was \$1.78. The corresponding amount spent by the stores in the large cities was \$2.80. That is, the average amount for the stores in the small cities was 77.4 per cent. and for the stores in the large cities, 121.7 per

cent. of the average for all stores irrespective of location. Between 1914 and 1918, and 1918 and 1919, the amounts decreased for stores located in the small cities. In those located in the large cities, there was a decrease between 1914 and 1918, and an increase between 1918 and 1919.

The basis of classification in Table 220 is the same as that in Table 219, but the advertising expenditures are expressed as proportionate parts of selling expense. For the stores in the combined years, expenditures for advertising constituted \$18.88 of every \$100 of selling expense for the stores in the small, and \$22.99 for the stores in the large cities. Relatively, these amounts are 88.8 and 108.2 per cent., respectively, of the average for all stores. Between 1914 and 1918, and













TABLE 218

RELATION OF ADVERTISING TO SELLING EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Stores	Selling Expense			Advertising				
			Total	Average Amount per Store		Total	Average Amount per Store		Per \$100 of Selling Expense	
				Amount	Per Cent. Increase over 1914		Amount	Per Cent. Increase over 1914	Amount	Per Cent. Decrease from 1914
Total (Average)	1919	154	\$2,182,027	\$14,169	106.0	\$463,940	\$3,013	92.8	\$21.26	6.4
	1918	154	1,609,671	10,452	51.9	326,047	2,117	35.4	20.26	10.8
	1914	154	1,059,414	6,879		240,682	1,563		22.72	
Under 40	1919	115	896,863	7,799	85.4	164,710	1,432	67.1	18.37	9.8
	1918	115	680,787	5,920	40.8	125,986	1,096	27.9	18.51	9.1
	1914	115	483,712	4,206		98,543	857		20.37	
40 and over	1919	39	1,285,164	32,953	123.2	299,230	7,673	110.5	23.28	5.7
	1918	39	928,884	23,818	61.3	200,061	5,130	40.7	21.54	12.8
	1914	39	575,702	14,762		142,139	3,645		24.69	

TABLE 219

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Store-years	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales									
					Amount	Per Cent.							Actual	
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	462	\$44,635,499	\$1,030,669	\$2.30								100.0	
	1919	154	20,892,764	463,940	2.22								96.5	
	1918	154	14,714,515	326,047	2.22								96.5	
	1914	154	9,228,220	240,682	2.61								113.5	
Under 40	Total (Average)	345	21,919,006	389,239	1.78								77.4	
	1919	115	10,005,585	164,710	1.65								71.7	
	1918	115	7,136,283	125,986	1.77								77.0	
	1914	115	4,777,138	98,543	2.06								89.6	
40 and over	Total (Average)	117	22,916,493	641,430	2.80								121.7	
	1919	39	10,887,179	299,230	2.75								119.6	
	1918	39	7,578,232	200,061	2.64								114.8	
	1914	39	4,451,082	142,139	3.19								138.7	

Average \$2.30

1918 and 1919, the amounts decreased for the stores in the small cities, while between 1914 and 1918 they decreased and between 1918 and 1919 they increased for the stores in the large cities. The purpose of this table is to make readily comparable from year to year the amounts for identical stores when they are classified according to location.













In Tables 214, 216, 218, and 220, advertising expenditures are expressed as proportionate parts of selling expense. Wages and salaries constitute, on the average, for the 154 stores considered, 66.7 per cent. of

total selling expense. The changes in wages and salaries from year to year, therefore, affect the relation of expenditures for advertising to total selling expense. From year to year, as the proportions of total selling expense attributable to wages and salaries increase, the proportions attributable to advertising expenditures decrease, and vice versa. The "other" expenses properly chargeable to selling make up the balance of selling expense. The changes of these expenses from year to year are indicated in the tables which pertain to them.*

* Pages 392 to 395.

TABLE 220

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Store- years	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	462	\$4,851,112	\$1,030,669	\$21.25								100.0
	1919	154	2,162,027	463,940	21.26								100.0
	1918	154	1,609,671	326,047	20.26								95.5
	1914	154	1,059,414	240,682	22.72								106.9
Under 40	Total (Average)	345	2,061,362	389,239	18.88								88.8
	1919	115	896,863	164,710	18.37								86.4
	1918	115	680,787	125,986	18.51								87.1
	1914	115	485,712	98,543	20.37								95.9
40 and over	Total (Average)	117	2,789,750	641,430	22.99								108.2
	1919	39	1,285,164	299,230	23.28								109.6
	1918	39	928,884	200,061	21.54								101.4
	1914	39	575,702	142,139	24.69								116.2
Average \$21.25													

From Tables 217 to 220, inclusive, it may be concluded as follows: First, advertising expenditures per \$100 of total net sales decreased between 1914 and 1918, and 1914 and 1919 for the stores when classified by location, the extent of decrease between 1914 and 1919 being larger for the stores in small than for those in the large cities, and between 1914 and 1918 larger for those in the large than for those in the small cities. Second, for the stores classified by location, advertising expenditures per \$100 of selling expense decreased between 1914 and 1918, and 1914 and 1919,

for stores in the two city-groups, the extent of the decrease between 1914 and 1918 for the stores in the small being greater than for those in the large cities, and between 1914 and 1918 greater for those in the large than for those in the small cities. Third, the amounts of advertising expenditure per \$100 of total net sales are larger for the stores in the large, than for those in the small cities. Fourth, for the stores as a whole, the expenditures for advertising per \$100 of selling expense decreased between 1914 and 1918, but increased between 1918 and 1919. They increased be-

tween 1918 and 1919 for the stores in the large, and decreased for those in the small cities.

D.—Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size and by Size of City in Which Located, 1919, 1918, and 1914.*

In Tables 221 to 224, inclusive, the amounts of advertising expenditures per \$100 of total net sales in the com-

* Population figures are for 1920.

bined and individual years are shown for stores of different size and with different location. The variations in these amounts are interesting. As the stores increase in size, no account being taken of location, the amounts in relation to sales increase. This condition, however, does not hold in the combined years for the stores located in the small cities, but it does hold over the entire range of sizes for the stores located in the large cities. The amounts are larger without exception for the stores in the large

TABLE 221

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919, 1918, AND 1914, COMBINED

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Store-years	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales									
					Amount	Per Cent.							Actual	
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	462	\$44,835,499	\$1,030,669	\$2.30									100.0
	Under \$40	129	3,590,553	60,972	1.70									73.9
	\$40 to \$80	172	9,775,007	167,646	1.72									74.8
	\$80 to \$180	117	15,695,639	319,703	2.33									101.3
	\$180 & over	44	17,774,300	482,348	2.71									117.8
Under 40	Total (Average)	345	21,919,006	389,239	1.78									77.4
	Under \$40	121	3,317,338	56,128	1.69									73.5
	\$40 to \$80	138	7,650,532	122,305	1.60									69.6
	\$80 to \$180	77	8,832,022	175,202	1.98									86.1
	\$180 & over	9	2,119,114	35,604	1.68									73.0
40 and over	Total (Average)	117	22,916,493	641,430	2.80									121.7
	Under \$40	8	273,215	4,844	1.77									77.0
	\$40 to \$80	34	2,024,475	45,341	2.24									97.4
	\$80 to \$180	40	4,963,617	144,501	2.91									126.5
	\$180 & over	35	15,655,186	446,744	2.85									123.9

Average \$2.30

than for those of the same size in the small cities. A comparison of this sort is more satisfactory than one which includes the totals only.















In view of the details shown in Tables 221 to 224, inclusive, it is unnecessary in the text discussion to indicate the characteristic amounts or the general relations which they bear to each other in each of the different years. The reader may consult those in which he is interested.

In Tables 225 to 228, inclusive, advertising expenditures per \$100 of

selling expense are shown for stores of different size and location. For the stores in the combined years, as the stores increase in size, advertising constitutes an increasing proportion of selling expense. This condition, however, holds only when no account is taken of the location of the stores. When they are classified by location, the amounts for the stores in the small cities decrease as the size of the stores increases, and for those in the large cities increase as the stores increase in size. For stores with sales

TABLE 222

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 154 STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
0 20 40 60 80 100 120 140																
Total (Average)	Total (Average)	154	\$20,892,764	\$463,940	\$2.22											100.0
	Under \$40	14	428,714	6,262	1.46											65.8
	\$40 to \$80	57	3,222,468	42,797	1.33											59.9
	\$80 to \$180	58	6,866,815	140,074	2.04											91.9
	\$180 & over	25	10,374,767	274,807	2.65											119.4
Under 40	Total (Average)	115	10,005,585	164,710	1.65											74.3
	Under \$40	14	428,714	6,262	1.46											65.8
	\$40 to \$80	51	2,836,747	37,696	1.33											59.9
	\$80 to \$180	44	5,255,410	95,437	1.82											82.0
	\$180 & over	6	1,494,714	25,355	1.71											77.0
40 and over	Total (Average)	39	10,837,179	299,200	2.75											123.9
	Under \$40	-	-	-	-											-
	\$40 to \$80	6	385,721	5,141	1.33											59.9
	\$80 to \$180	14	1,611,405	44,637	2.77											124.8
	\$180 & over	19	8,830,053	249,452	2.81											126.6

Average \$2.22

TABLE 223

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 154 STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1918

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	154	\$14,714,515	\$326,047	\$2.22	<div></div>							100.0
	Under \$40	42	1,256,795	19,197	1.53	<div></div>							68.9
	\$40 to \$80	63	3,662,794	60,416	1.65	<div></div>							74.3
	\$80 to \$180	35	4,090,203	98,491	2.41	<div></div>							108.6
	\$180 & over	14	5,704,723	147,943	2.59	<div></div>							116.7
Under 40	Total (Average)	115	7,136,283	125,986	1.77	<div></div>							79.7
	Under \$40	41	1,221,199	19,129	1.57	<div></div>							70.7
	\$40 to \$80	49	2,776,272	43,829	1.58	<div></div>							71.2
	\$80 to \$180	22	2,504,412	52,779	2.11	<div></div>							95.0
	\$180 & over	3	634,400	10,249	1.62	<div></div>							73.0
40 and over	Total (Average)	39	7,578,232	200,061	2.64	<div></div>							118.9
	Under \$40	1	35,596	68	0.19	<div></div>							8.6
	\$40 to \$80	14	886,522	16,587	1.87	<div></div>							84.2
	\$80 to \$180	13	1,585,791	45,712	2.88	<div></div>							129.7
	\$180 & over	11	5,070,323	137,694	2.72	<div></div>							122.5

Average, \$2.22

under \$40,000, the advertising expenditures constitute a larger proportion of selling expense for the stores in the small than for those in the large cities, while for stores with sales in excess of this amount, an inverse condition obtains.

Tables 226 to 228, inclusive, contain the data for the years 1919, 1918, and 1914, respectively. From year to year for stores of different size and location, the advertising expenditures vary in amount and in direction of change. The nature of these varia-

tions is evident from the detail of the tables.

Tables 221 to 228, inclusive, may be summarized as follows: First, advertising expenditures per \$100 of total net sales increase as stores increase in size when no account is taken of location. When stores of varying size and location are compared, expenditures for advertising remain essentially constant for stores of different size, located in small cities, but increase with the size of stores for stores in the large cities.

Second, advertising expenditures per \$100 of selling expense increase as stores increase in size. When stores are classified by size and by location, however, the amounts for the stores in the small cities decrease, and for those in the large cities increase, as stores increase in size. Certain exceptions to this tendency occur in each of the different years under consideration. These, however, do not seriously disturb the general conclusions which have been drawn.

E.—Summary.

- (1). The amounts spent for advertising per \$100 of total net sales decreased between 1914 and 1918, and remained constant between 1918 and 1919. This condition holds for the 154 stores as a whole. For those with sales less than \$180,000, the amounts decreased from year to year; while for those with sales

TABLE 224
















TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 154 STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1914

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
						0	20	40	60	80	100	120	140			
Total (Average)	Total (Average)	154	\$9,228,220	\$240,682	\$2.61	<div><div></div></div>										100.0
	Under \$40	73	1,905,044	35,513	1.86	<div><div></div></div>										71.3
	\$40 to \$80	52	2,889,745	64,433	2.23	<div><div></div></div>										85.4
	\$80 to \$180	24	2,738,621	81,138	2.96	<div><div></div></div>										113.4
	\$180 & over	5	1,694,810	59,598	3.52	<div><div></div></div>										134.9
Under 40	Total (Average)	115	4,777,138	98,543	2.06	<div><div></div></div>										78.9
	Under \$40	66	1,667,425	30,737	1.84	<div><div></div></div>										70.5
	\$40 to \$80	38	2,037,513	40,820	2.00	<div><div></div></div>										76.6
	\$80 to \$180	11	1,072,200	26,986	2.52	<div><div></div></div>										96.6
	\$180 & over	-	-	-	-	<div><div></div></div>										-
40 and over	Total (Average)	39	4,451,082	142,139	3.19	<div><div></div></div>										122.2
	Under \$40	7	237,619	4,776	2.01	<div><div></div></div>										77.0
	\$40 to \$80	14	852,232	23,613	2.77	<div><div></div></div>										106.1
	\$80 to \$180	13	1,666,421	54,152	3.25	<div><div></div></div>										124.5
	\$180 & over	5	1,694,810	59,598	3.52	<div><div></div></div>										134.9

Average \$2.61

TABLE 225

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919, 1918, AND 1914, COMBINED

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Store-years	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense									
					Amount	Per Cent.						Actual		
						Graphic								
							0	20	40	60	80	100	120	
Total (Average)	Total (Average)	462	\$4,851,112	\$1,030,669	\$21.25								100.0	
	Under \$40	129	304,954	60,972	19.99								94.1	
	\$40 to \$80	172	913,357	167,646	18.35								86.4	
	\$80 to \$180	117	1,491,801	319,703	21.43								100.8	
	\$180 & over	44	2,141,000	482,348	22.53								106.0	
Under 40	Total (Average)	345	2,061,362	389,239	18.88								89.8	
	Under \$40	121	276,723	56,128	20.28								95.4	
	\$40 to \$80	138	670,140	122,305	18.25								85.9	
	\$80 to \$180	77	892,563	175,202	19.63								92.4	
	\$180 & over	9	221,936	35,604	16.04								75.5	
40 and over	Total (Average)	117	2,789,750	641,430	22.99								108.2	
	Under \$40	8	28,231	4,844	17.16								80.8	
	\$40 to \$80	34	243,217	45,341	18.64								87.7	
	\$80 to \$180	40	599,238	144,501	24.11								113.5	
	\$180 & over	35	1,919,064	446,744	23.28								109.6	

Average \$21.25

of \$180,000 and over, the amounts decreased between 1914 and 1918, and increased between 1918 and 1919.















- (2). The proportion of selling expense attributable to advertising decreased between 1914 and 1918. This holds for all stores, as well as for stores classified by size. Between 1918 and 1919, the amount for all stores increased. The

direction of change from year to year was not uniform for stores classified by size.

- (3). Advertising in terms of either sales or selling expense decreased by a larger percentage between 1914 and 1919, and by a smaller percentage between 1914 and 1918 for stores in small than it did for those in large cities.

TABLE 226

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 154 STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense								
					Amount	Per Cent.						Actual	
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	154	\$2,182,027	\$463,940	\$21.26							100.0	
	Under \$40	14	29,018	6,262	21.58							101.5	
	\$40 to \$80	57	246,207	42,797	17.38							81.7	
	\$80 to \$180	58	719,436	140,074	19.47							91.6	
	\$180 & over	25	1,187,366	274,807	23.14							108.8	
Under 40	Total (Average)	115	896,863	164,710	18.37							86.4	
	Under \$40	14	29,018	6,262	21.58							101.5	
	\$40 to \$80	51	211,678	37,656	17.79							83.7	
	\$80 to \$180	44	509,410	95,437	18.73							88.1	
	\$180 & over	6	146,757	25,355	17.28							81.3	
40 and over	Total (Average)	39	1,285,164	299,230	23.28							109.5	
	Under \$40	-	-	-	-							-	
	\$40 to \$80	6	34,529	5,141	14.89							70.0	
	\$80 to \$180	14	210,026	44,637	21.25							100.0	
	\$180 & over	19	1,040,609	249,452	23.97							112.7	

Average \$21.26













- (4). The amounts of advertising expenditure per \$100 of total net sales for all stores and for those located in large cities increase as stores increase in size, while they remain practically constant for stores in small cities.
- (5). For stores of a given size, advertising expenditures in terms of sales are higher in large than in small cities.
- (6). The proportions of selling

expense attributable to advertising increase with the size of store for all stores and for those located in large cities, while they decrease as the stores increase in size for stores in small cities.

- (7). For stores of given size, the amounts of advertising expenditure per \$100 of selling expense are generally higher in large cities than for stores in small cities.

TABLE 227

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 154 STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1918

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense											
					Amount	Per Cent.										
						Graphic										Actual
						0	20	40	60	80	100	120	140			
Total (Average)	Total (Average)	154	\$1,609,671	\$326,047	\$20.26											100.0
	Under \$40	42	101,621	19,197	18.89											93.2
	\$40 to \$80	63	345,293	60,416	17.50											86.4
	\$80 to \$180	35	445,138	98,491	22.13											109.2
	\$180 & over	14	717,619	147,943	20.62											101.8
Under 40	Total (Average)	115	680,787	125,986	18.51											91.4
	Under \$40	41	99,513	19,129	19.22											94.9
	\$40 to \$80	49	244,788	43,829	17.90											88.4
	\$80 to \$180	22	261,507	52,779	20.20											99.7
	\$180 & over	3	75,179	10,249	13.63											67.3
40 and over	Total (Average)	39	928,884	200,061	21.54											106.3
	Under \$40	1	2,108	68	3.23											15.9
	\$40 to \$80	14	100,505	16,587	16.50											81.4
	\$80 to \$180	13	183,831	45,712	24.87											122.8
	\$180 & over	11	642,440	137,694	21.43											105.8

Average \$20.26

Average \$20.26

2.—YEARLY AMOUNTS OF EXPENDITURE FOR ADVERTISING IN RELATION TO THE AMOUNTS OF STOCK CARRIED, FOR STORES CLASSIFIED BY YEARS, BY SIZE, AND BY RATES OF STOCK TURNOVER.












On pages 53 to 85, and 204 to 226, respectively, the amounts of selling expense and of wages and salaries were discussed for stores classified by the amounts of stock carried. In this section, expenditures for advertising are similarly treated.

A.—Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales and per \$100 of Selling Expense, 1919, 1918, and 1914.

For the study of the amounts of advertising expenditure per \$100 of total net sales in relation to the size of inventories, the records of 149 stores are available for the years 1914, 1918, and 1919. The amounts are contained in Table 229. For the combined years, the stores which had inventories less than \$20 per \$100 of

TABLE 228

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 154 STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1914

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Stores	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense								
					Amount	Per Cent.						Actual	
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	154	\$1,059,414	\$240,532	\$22.72								100.0
	Under \$40	73	174,315	35,513	20.37								89.7
	\$40 to \$80	52	321,957	64,433	20.02								88.1
	\$80 to \$180	24	327,227	81,138	24.80								109.2
	\$180 & over	5	236,015	59,598	25.25								111.1
Under 40	Total (Average)	115	433,712	98,543	20.37								89.7
	Under \$40	66	148,192	30,737	20.74								91.3
	\$40 to \$80	38	213,674	40,820	19.10								84.1
	\$80 to \$180	11	121,846	26,986	22.15								97.5
	\$180 & over	-	-	-	-								-
40 and over	Total (Average)	39	575,702	142,139	24.69								108.7
	Under \$40	7	26,123	4,776	18.28								80.5
	\$40 to \$80	14	108,183	23,613	21.83								96.1
	\$80 to \$180	13	205,381	54,152	26.37								116.1
	\$180 & over	5	236,015	59,598	25.25								111.1

Average \$22.72

total net sales spent \$1.78 for advertising in terms of sales. This, like the amounts of total selling expense and wages and salaries for this group of stores, is relatively small. For the stores which had inventories between \$20 and \$40 per \$100 of total net sales, the advertising expenditure was \$2.47. From this figure as a maximum, the expenditures decrease to \$1.94 for the stores which had inventories of \$60 and over. That is, if exception is made for stores with inventories of less than \$20, expendi-

tures for advertising for the stores in the combined years decrease as the inventories in relation to sales increase. A similar relationship obtains in each of the different years.

For the 149 stores in 1914, the average amount of expenditure for advertising per \$100 of total net sales was \$2.63. In 1918 it was \$2.23 and in 1919, \$2.24. That is, there was a decrease between 1914 and 1918 and a slight increase between 1918 and 1919. With the exception, in each of the years, of the stores which had the

lowest inventories, the amounts of advertising expenditure decreased between 1914 and 1918, and 1918 and 1919. It is this comparison which is of most significance, the totals for the respective years being affected by the amounts of the sales and by the size of the inventories in relation to sales.

When the amounts of expenditure for advertising per \$100 of sales for stores with inventories of different size are reduced to a common basis

by expressing them in terms of the amount sold per \$1 of inventory, they increase, in the combined years, from \$0.31 for the stores with smallest, to \$1.36 for the stores with largest relative inventories. Similar increases occur in each of the years considered.

The inverse relationship between the average amount of inventory per \$100 of total net sales and the average amount of advertising expenditure, similarly measured, is shown in Table

TABLE 229

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER AMOUNT SOLD PER \$1 OF INVENTORY, FOR 149 IDENTICAL STORES CLASSIFIED BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Inventory per \$100 of Total Net Sales	Number of Store-years	Advertising per \$100 of Total Net Sales												Advertising per \$100 of Total Net Sales per Amount Sold per \$1 of Inventory													
			Amount	Per Cent.											Amount	Per Cent.												
				Graphic												Graphic												
				0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	160	Actual						
Total (Average)	Total (Average)	447	\$2.32												100.0	\$0.87												100.0
	Under \$20	14	1.78												76.7	0.31												35.6
	\$20 to \$40	168	2.47												106.6	0.74												85.1
	\$40 to \$60	177	2.16												93.1	1.08												124.1
	\$60 & over	88	1.94												83.6	1.36												156.3
1919	Total (Average)	149	2.24												96.6	0.73												83.9
	Under \$20	7	2.00												86.2	0.35												40.2
	\$20 to \$40	83	2.32												100.0	0.70												90.5
	\$40 to \$60	51	2.02												87.1	1.01												116.1
	\$60 & over	8	1.72												74.1	1.20												137.9
1918	Total (Average)	149	2.25												96.1	0.90												103.4
	Under \$20	3	0.93												40.1	0.16												13.4
	\$20 to \$40	48	2.43												104.7	0.73												85.9
	\$40 to \$60	60	2.17												93.5	1.09												125.3
	\$60 & over	40	1.94												83.6	1.36												156.3
1914	Total (Average)	149	2.63												113.4	1.14												131.0
	Under \$20	4	2.35												101.3	0.41												47.1
	\$20 to \$40	39	3.14												135.3	0.94												108.0
	\$40 to \$60	66	2.32												100.0	1.16												133.3
	\$60 & over	40	2.00												86.2	1.40												160.9
			Average \$2.32												Average \$0.87													

230. For the combined years, stores which spent less than \$1 in advertising in terms of sales had on the average an inventory of \$40.94. The amount of inventory for those which spent between \$1 and \$2 was slightly larger, and for those that spent more, considerably less than this amount. When the separate years are con-

sidered, the inventories, with a few exceptions, decrease as the amounts spent for advertising per \$100 of total net sales increase. The average amount of inventory for the stores in the combined years is \$37.54. For 1914 it was \$43.44, for 1918, \$40.53, and for 1919, \$32.84. That is, the inventories decreased between 1914

TABLE 230

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 IDENTICAL STORES CLASSIFIED BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Advertising per \$100 of Total Net Sales	Number of Store-years	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales			
					Amount	Per Cent.		Actual
						Graphic		
						0 20 40 60 80 100 120 140		
Total (Average)	Total (Average)	447	\$43,599,972	\$16,369,406	\$37.54		100.0	
	Under \$1	105	6,153,722	2,519,091	40.94		109.1	
	\$1 to \$2	147	10,474,625	4,359,751	41.62		110.9	
	\$2 to \$3	114	15,040,118	5,161,173	34.32		91.4	
	\$3 & over	81	11,931,507	4,329,391	36.29		96.7	
1919	Total (Average)	149	20,303,641	6,667,056	32.84		87.5	
	Under \$1	41	3,106,729	1,135,040	36.53		97.3	
	\$1 to \$2	47	4,460,395	1,634,516	36.65		97.6	
	\$2 to \$3	42	8,386,989	2,491,097	29.70		79.1	
	\$3 & over	19	4,349,628	1,406,403	32.33		86.1	
1918	Total (Average)	149	14,322,667	5,804,340	40.53		108.0	
	Under \$1	38	2,156,926	993,421	45.59		121.4	
	\$1 to \$2	49	3,542,012	1,469,279	41.48		110.5	
	\$2 to \$3	38	4,490,247	1,736,775	38.77		103.3	
	\$3 & over	24	4,143,482	1,614,865	38.97		103.8	
1914	Total (Average)	149	8,973,664	3,898,010	43.44		115.7	
	Under \$1	26	890,067	400,630	45.01		119.9	
	\$1 to \$2	51	2,472,218	1,255,956	50.80		135.3	
	\$2 to \$3	34	2,172,982	933,301	42.95		114.4	
	\$3 & over	38	3,438,397	1,308,123	38.04		101.3	

Average \$37.54

TABLE 231

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 149 IDENTICAL STORES CLASSIFIED BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Inventory per \$100 of Total Net Sales	Number of Store-years	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	447	\$4,745,829	\$1,009,377	\$21.27								100.0
	Under \$20	14	172,900	36,654	21.20								99.7
	\$20 to \$40	168	3,088,085	655,340	21.22								99.8
	\$40 to \$60	177	1,128,967	243,739	21.59								101.5
	\$60 & over	88	355,877	73,644	20.69								97.3
1919	Total (Average)	149	2,135,072	453,840	21.26								100.0
	Under \$20	7	105,711	24,173	22.87								107.5
	\$20 to \$40	83	1,649,518	348,645	21.14								99.4
	\$40 to \$60	51	345,965	73,301	21.19								99.6
	\$60 & over	8	33,878	7,721	22.79								107.1
1918	Total (Average)	149	1,573,249	319,845	20.33								95.6
	Under \$20	3	32,117	4,960	15.44								72.6
	\$20 to \$40	46	937,441	183,038	19.53								91.8
	\$40 to \$60	60	427,462	95,288	22.29								104.8
	\$60 & over	40	176,229	36,559	20.75								97.6
1914	Total (Average)	149	1,037,508	235,692	22.72								106.8
	Under \$20	4	35,072	7,521	21.44								100.8
	\$20 to \$40	39	501,126	123,657	24.68								116.0
	\$40 to \$60	66	355,540	75,150	21.14								99.4
	\$60 & over	40	145,770	29,364	20.14								94.7

Average \$21.27

and 1918, and 1918 and 1919, the margin of difference between 1918 and 1919 being 2.6 times as great as between 1914 and 1918.

In Table 231, for the same stores as those considered in Tables 229 and

230, the average amounts of advertising expenditures are expressed as proportionate parts of selling expense. For the stores in the combined years, the average is \$21.27. In 1914 it was \$22.72, in 1918, \$20.33, and in 1919,

\$21.26. For the stores in the combined years and in 1919 and 1914, the amounts per \$100 of selling expense remain essentially constant as inventories in relation to sales increase.* Approximately \$21 might be said to be the characteristic amount.

From Tables 229 to 231, inclusive, it may be concluded: First, if the stores with smallest inventories in relation to sales are excepted, the amounts of advertising expenditure per \$100 of total net sales decrease as the amounts of inventories per \$100 of total net sales increase. Second, the amounts of advertising expenditure per \$100 of selling expense are essentially constant for stores having different amounts of inventory in relation to sales.*

B.—Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size, 1919, 1918, and 1914.

In the foregoing tables, the stores are not classified according to size. Such a classification is made in Tables 232 to 235, inclusive.

In Table 232 the amounts of advertising expenditure are shown for stores in the three years 1914, 1918, and 1919, combined. On the basis of the experience of 447 store-years, the average amount spent for advertising per \$100 of total net sales is \$2.32.

* For a somewhat larger number of stores, and with wider groupings of inventories in relation to sales, as shown in Table 246, the amounts decrease, as inventories in relation to sales increase in size. The same condition tends to hold for the stores in 1914.

























For those with sales under \$40,000, it is \$1.67; for those with sales of \$40,000 to \$80,000, \$1.69; for those with sales of \$80,000 to \$180,000, \$2.39; and for those with sales of \$180,000 and over, \$2.72. That is, the amounts increase as the size of the stores increases. When the stores are classified by size, and further by the amounts of inventory per \$100 of total net sales, expenditures for advertising generally tend to increase as the inventories per \$100 of total net sales increase. However, to this general rule for the stores in the combined and in the different years, there are so many exceptions that it is difficult to generalize. The reader is advised to consult the tables for the direction of change for the different groups of stores.

In Tables 233 to 235, inclusive, the amounts of advertising expenditure per \$100 of total net sales are shown for stores classified as in Table 232 for the years 1919, 1918, and 1914, respectively. It is unnecessary, in view of the consideration already given to expenditures for advertising for the combined years, to consider these tables in detail. Year to year comparisons of the total amounts have already been made and an inspection of the tables will show how the amounts vary for the stores of different size in each of the years. In a general way, the relationships which obtain in the combined, also hold for the individual years.

In Tables 232 to 235, inclusive, advertising expenditures are expressed in terms of sales alone. In

TABLE 232

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 149 IDENTICAL STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales							
					Amount	Per Cent.						
						Graphic						Actual
						0	20	40	60	80	100 120 140	
Total (Average)	Total (Average)	447	\$43,599,972	\$1,009,377	\$2.32							100.0
	Under \$20	14	2,059,425	36,654	1.78							76.7
	\$20 to \$40	168	26,478,436	655,340	2.47							106.5
	\$40 to \$60	177	11,263,282	243,739	2.16							93.1
	\$60 & over	88	3,798,829	73,644	1.94							83.6
Under \$40	Total (Average)	127	3,532,911	59,024	1.67							72.0
	Under \$20	1	28,933	228	0.79							34.1
	\$20 to \$40	18	560,460	9,477	1.69							72.8
	\$40 to \$60	62	1,412,525	26,112	1.85							79.7
	\$60 & over	56	1,530,993	23,207	1.52							65.5
\$40 to \$60	Total (Average)	165	9,360,348	158,486	1.69							72.8
	Under \$20	6	402,009	4,904	1.22							52.6
	\$20 to \$40	52	3,083,049	54,480	1.77							76.3
	\$40 to \$60	82	4,458,869	74,251	1.67							72.0
	\$60 & over	25	1,416,421	24,851	1.75							75.4
\$80 to \$180	Total (Average)	112	13,121,494	313,119	2.59							103.0
	Under \$20	5	555,107	8,305	1.50							64.7
	\$20 to \$40	60	7,076,841	156,342	2.21							95.3
	\$40 to \$60	40	4,638,131	122,886	2.65							114.2
	\$60 & over	7	851,415	25,586	3.01							129.7
\$180 & over	Total (Average)	43	17,585,219	478,748	2.72							117.2
	Under \$20	2	1,073,376	23,217	2.16							93.1
	\$20 to \$40	38	15,758,086	435,041	2.76							119.0
	\$40 to \$60	3	753,757	20,490	2.72							117.2
	\$60 & over	-	-	-	-							-

Average \$2.32



















Table 236 they are expressed in terms of sales for the amount sold per \$1 of inventory.*

* The method by which this unit is computed is explained on page 4, item 17.

For the stores in the combined years, \$0.87 was expended for advertising per \$100 of total net sales for the amount sold for each \$1 of inventory. In 1914 the corresponding

TABLE 233























TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales							
					Amount	Per Cent.						Actual
						Graphic						
						0	20	40	60	80	100	
Total (Average)	Total (Average)	149	\$20,303,641	\$453,840	\$2.24							100.0
	Under \$20	7	1,208,118	24,175	2.00							89.3
	\$20 to \$40	83	15,018,367	348,645	2.32							103.6
	\$40 to \$60	51	3,628,188	73,301	2.02							90.2
	\$60 & over	8	448,968	7,721	1.72							76.8
Under \$40	Total (Average)	14	428,714	6,262	1.46							65.2
	Under \$20	-	-	-	-							-
	\$20 to \$40	2	68,054	895	1.32							58.9
	\$40 to \$60	8	244,012	4,334	1.78							79.5
	\$60 & over	4	116,648	1,033	0.89							39.7
\$40 to \$80	Total (Average)	55	3,082,152	38,705	1.26							56.3
	Under \$20	2	150,276	1,224	0.81							36.2
	\$20 to \$40	22	1,287,723	16,723	1.30							58.0
	\$40 to \$60	28	1,472,999	19,317	1.31							58.5
	\$60 & over	3	171,154	1,441	0.84							37.5
\$80 to \$120	Total (Average)	56	6,607,089	137,668	2.08							92.9
	Under \$20	4	384,466	3,573	0.92							41.5
	\$20 to \$40	37	4,382,158	84,725	1.93							86.2
	\$40 to \$60	14	1,679,299	44,121	2.63							117.4
	\$60 & over	1	161,166	5,247	3.26							145.5
\$120 & over	Total (Average)	24	10,185,686	271,207	2.66							118.6
	Under \$20	1	673,376	19,376	2.88							128.6
	\$20 to \$40	22	9,280,432	246,302	2.65							118.3
	\$40 to \$60	1	231,878	5,529	2.38							106.3
	\$60 & over	-	-	-	-							-

Average \$2.24

TABLE 234

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
						0	20	40	60	80	100	120	140	160		
Total (Average)	Total (Average)	149	\$14,322,667	\$319,845	\$2.23											100.0
	Under \$20	3	530,649	4,960	0.93											41.7
	\$20 to \$40	46	7,517,748	183,038	2.43											109.0
	\$40 to \$60	60	4,389,893	95,288	2.17											97.3
	\$60 & over	40	1,884,377	36,559	1.94											87.0
Under \$40	Total (Average)	42	1,256,795	19,197	1.53											68.6
	Under \$20	-	-	-	-											-
	\$20 to \$40	6	209,528	3,875	1.85											83.0
	\$40 to \$60	13	381,673	6,488	1.70											76.2
	\$60 & over	23	665,594	8,836	1.33											59.6
\$40 to \$80	Total (Average)	60	3,501,019	57,778	1.65											74.0
	Under \$20	2	130,649	1,119	0.86											38.8
	\$20 to \$40	15	901,852	15,355	1.70											76.2
	\$40 to \$60	29	1,632,061	26,154	1.60											71.7
	\$60 & over	14	836,457	15,150	1.81											81.2
\$80 to \$180	Total (Average)	33	3,860,130	94,927	2.46											110.3
	Under \$20	-	-	-	-											-
	\$20 to \$40	14	1,623,524	34,667	2.14											96.0
	\$40 to \$60	16	1,854,280	47,687	2.57											115.2
	\$60 & over	3	382,326	12,573	3.29											147.5
\$180 & over	Total (Average)	14	5,704,723	147,943	2.59											116.1
	Under \$20	1	400,000	3,841	0.96											43.0
	\$20 to \$40	11	4,782,844	129,141	2.70											121.1
	\$40 to \$60	2	521,879	14,961	2.87											128.7
	\$60 & over	-	-	-	-											-

Average \$2.23

TABLE 235

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number Stores	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
0 20 40 60 80 100 120 140 160																
Total (Average)	Total (Average)	149	\$8,973,664	\$235,692	\$2.63	<div></div>										100.0
	Under \$20	4	320,658	7,521	2.35	<div></div>										89.4
	\$20 to \$40	39	3,942,321	123,657	3.14	<div></div>										119.4
	\$40 to \$60	66	3,245,201	75,150	2.32	<div></div>										85.2
	\$60 & over	40	1,465,464	29,364	2.00	<div></div>										76.0
Under \$40	Total (Average)	71	1,847,402	33,565	1.82	<div></div>										69.2
	Under \$20	1	28,933	228	0.79	<div></div>										30.0
	\$20 to \$40	10	282,878	4,707	1.66	<div></div>										63.1
	\$40 to \$60	31	786,840	15,292	1.94	<div></div>										73.8
	\$60 & over	29	748,751	13,338	1.78	<div></div>										67.7
\$40 to \$60	Total (Average)	50	2,777,177	62,003	2.23	<div></div>										84.8
	Under \$20	2	121,084	2,561	2.12	<div></div>										80.6
	\$20 to \$40	15	893,474	22,402	2.51	<div></div>										95.4
	\$40 to \$60	25	1,353,809	28,780	2.13	<div></div>										81.0
	\$60 & over	8	408,610	8,260	2.02	<div></div>										76.8
\$60 to \$160	Total (Average)	23	2,654,275	80,526	3.03	<div></div>										115.2
	Under \$20	1	170,641	4,732	2.77	<div></div>										105.3
	\$20 to \$40	9	1,071,159	36,950	3.45	<div></div>										131.2
	\$40 to \$60	10	1,104,552	31,078	2.81	<div></div>										106.8
	\$60 & over	3	307,923	7,766	2.52	<div></div>										95.8
\$160 & over	Total (Average)	5	1,694,810	59,598	3.52	<div></div>										133.8
	Under \$20	-	-	-	-	<div></div>										-
	\$20 to \$40	5	1,694,810	59,598	3.52	<div></div>										133.8
	\$40 to \$60	-	-	-	-	<div></div>										-
	\$60 & over	-	-	-	-	<div></div>										-

Average \$2.63

TABLE 236

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER AMOUNT SOLD PER \$1
OF INVENTORY, FOR 149 IDENTICAL STORES CLASSIFIED BY SIZE AND BY
AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES,
1919, 1918, AND 1914





















Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Amount of Advertising per \$100 of Total Net Sales per Amount Sold per \$1 of Inventory											
		Average			1919			1918			1914		
		Actual	Graphic	\$2	Actual	Graphic	\$2	Actual	Graphic	\$2	Actual	Graphic	\$2
Total (Average)	Total (Average)	\$0.87			\$0.73			\$0.90			\$1.14		
	Under \$20	0.31			0.35			0.16			0.41		
	\$20 to \$40	0.74			0.70			0.73			0.94		
	\$40 to \$60	1.08			1.01			1.09			1.16		
	\$60 & over	1.36			1.20			1.36			1.40		
Under \$40	Total (Average)	0.04			0.75			0.69			1.02		
	Under \$20	0.14			-			-			0.14		
	\$20 to \$40	0.51			0.40			0.56			0.50		
	\$40 to \$60	0.95			0.89			0.85			0.97		
	\$60 & over	1.06			0.62			0.93			1.28		
\$40 to \$80	Total (Average)	0.77			0.52			0.82			1.00		
	Under \$20	0.21			0.14			0.15			0.37		
	\$20 to \$40	0.53			0.59			0.51			0.75		
	\$40 to \$60	0.84			0.55			0.80			1.07		
	\$60 & over	1.23			0.59			1.27			1.41		
\$80 to \$120	Total (Average)	0.94			0.75			1.11			1.24		
	Under \$20	0.26			0.16			-			0.49		
	\$20 to \$40	0.65			0.58			0.64			1.04		
	\$40 to \$60	1.35			1.32			1.29			1.41		
	\$60 & over	2.11			2.58			2.30			1.76		
\$120 & over	Total (Average)	0.76			0.75			0.75			1.10		
	Under \$20	0.58			0.50			0.17			-		
	\$20 to \$40	0.65			0.80			0.81			1.10		
	\$40 to \$60	1.36			1.19			1.44			-		
	\$60 & over	-			-			-			-		
		Average \$0.87			Average \$0.75			Average \$0.90			Average \$1.14		

amount was \$1.14; in 1918, \$0.90; and in 1919, \$0.73. That is, the amounts decreased from 1914 to 1918, and 1918 to 1919. When the records of the stores in the three years are combined, the amounts spent for advertising per \$100 of sales for the amount sold per \$1 of inventory, increase as the inventories per \$100 of total net sales increase. For the

stores with inventories of less than \$20 per \$100 of total net sales, the average amount is \$0.31. From this as a minimum, the amounts increase to \$1.36 for the stores having inventories of \$60 and over in relation to their sales. Similar increases also characterize the stores as a whole in each of the years. Moreover, for each group of stores when classified by

TABLE 237

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 IDENTICAL STORES CLASSIFIED BY SIZE AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales											
					Amount	Per Cent.										Actual
						Graphic										
						0	20	40	60	80	100	120	140	160		
Total (Average)	Total (Average)	447	\$43,599,972	\$16,369,406	\$37.54											100.0
	Under \$1	105	6,153,722	2,519,091	40.94											109.1
	\$1 to \$2	147	10,474,625	4,359,751	41.62											110.9
	\$2 to \$3	114	15,040,118	5,161,173	34.32											91.4
	\$3 & over	81	11,951,507	4,329,391	36.29											96.7
Under \$40	Total (Average)	127	3,532,911	1,989,518	56.31											150.0
	Under \$1	37	1,110,360	580,532	52.28											139.3
	\$1 to \$2	51	1,383,688	813,497	58.79											156.6
	\$2 to \$3	21	556,572	336,330	60.25											160.5
	\$3 & over	18	482,291	260,159	55.94											143.7
\$40 to \$80	Total (Average)	165	9,360,348	4,254,795	45.46											121.1
	Under \$1	51	2,845,600	1,238,760	43.53											115.0
	\$1 to \$2	58	3,224,357	1,497,100	46.43											123.7
	\$2 to \$3	37	2,168,431	1,022,722	47.16											125.6
	\$3 & over	19	1,121,960	496,213	44.23											117.8
\$80 to \$180	Total (Average)	112	13,121,494	5,193,131	39.58											105.4
	Under \$1	15	1,635,795	536,834	32.82											87.4
	\$1 to \$2	31	3,643,631	1,396,974	38.07											101.4
	\$2 to \$3	35	4,249,058	1,594,201	37.28											99.3
	\$3 & over	31	3,593,010	1,685,122	46.90											124.9
\$180 & over	Total (Average)	43	17,585,219	4,931,962	28.05											74.7
	Under \$1	2	561,967	162,965	28.99											77.2
	\$1 to \$2	7	2,222,949	662,180	29.79											79.4
	\$2 to \$3	21	8,066,057	2,218,920	27.51											73.3
	\$3 & over	13	6,734,246	1,887,897	28.03											74.7

Average \$37.54

TABLE 238

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales											
					Amount	Per Cent.										Actual
						Graphic										
					0	20	40	60	80	100	120	140	160	180		
Total (Average)	Total (Average)	149	\$20,303,641	\$6,667,056	\$32.84											100.0
	Under \$1	41	3,106,729	1,136,040	36.53											111.2
	\$1 to \$2	47	4,460,395	1,634,516	36.65											111.6
	\$2 to \$3	42	8,386,889	2,491,097	29.70											90.4
	\$3 & over	19	4,349,623	1,406,403	32.33											98.4
Under \$40	Total (Average)	14	428,714	215,607	50.29											153.1
	Under \$1	6	191,955	95,963	50.00											152.2
	\$1 to \$2	8	135,428	75,435	55.70											162.6
	\$2 to \$3	1	28,261	6,749	23.88											72.7
	\$3 & over	2	73,070	37,440	51.24											156.0
\$40 to \$80	Total (Average)	55	3,082,152	1,280,953	41.56											126.6
	Under \$1	22	1,273,873	506,329	39.75											121.0
	\$1 to \$2	21	1,133,971	475,162	41.90											127.6
	\$2 to \$3	10	555,595	248,228	43.89											133.8
	\$3 & over	2	108,713	51,234	47.13											143.5
\$80 to \$180	Total (Average)	66	6,607,089	2,366,933	35.82											109.1
	Under \$1	12	1,306,691	437,851	33.51											102.0
	\$1 to \$2	17	1,907,262	655,613	34.37											104.7
	\$2 to \$3	18	2,283,765	793,690	34.73											105.8
	\$3 & over	9	1,109,471	479,779	43.24											131.7
\$180 & over	Total (Average)	24	10,185,686	2,803,563	27.52											83.8
	Under \$1	1	334,310	94,877	28.36											86.4
	\$1 to \$2	4	1,283,734	428,306	33.36											101.6
	\$2 to \$3	13	5,509,268	1,442,430	26.18											79.7
	\$3 & over	6	3,058,374	837,950	27.40											83.4
Average \$32.84																

size, the advertising expenditures, measured in this unit, increase as the inventories per \$100 of total net sales increase. This, of course, is to be expected in view of the method of classifying the stores. By the use of

such a measure, stores with different sales and inventories are reduced to a unit basis.

Table 236 should be considered in connection with the details in Tables 232 to 235, inclusive. Moreover, it is

of interest to compare Table 236 with Tables 26 and 143 which show respectively the amounts of selling expense and the amounts of wages and salaries expressed in this form.

Tables 237 to 240, inclusive, for the combined and individual years, show the amounts of inventories per \$100 of total net sales for stores classified by size and by amounts of advertising

TABLE 239


























TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales											
					Amount	Per Cent.										Actual
						Graphic										
						0	20	40	60	80	100	120	140	160		
Total (Average)	Total (Average)	149	\$14,322,667	\$5,804,340	\$40.53											100.0
	Under \$1	38	2,156,926	985,421	45.59											112.5
	\$1 to \$2	49	3,542,012	1,469,279	41.48											102.3
	\$2 to \$3	38	4,480,247	1,736,775	38.77											95.7
	\$3 & over	24	4,143,482	1,614,865	38.97											96.2
Under \$40	Total (Average)	42	1,256,795	734,523	58.44											144.2
	Under \$1	12	387,840	228,185	58.83											145.2
	\$1 to \$2	21	595,175	344,768	57.93											142.9
	\$2 to \$3	6	175,690	107,597	61.24											151.1
	\$3 & over	3	98,090	53,973	55.02											135.8
\$40 to \$80	Total (Average)	60	3,501,019	1,729,460	49.40											121.9
	Under \$1	22	1,212,225	588,165	48.52											119.7
	\$1 to \$2	17	972,151	487,603	50.16											123.8
	\$2 to \$3	16	995,546	480,960	48.31											119.2
	\$3 & over	5	321,097	172,712	53.79											132.7
\$80 to \$180	Total (Average)	33	3,860,130	1,741,562	45.12											111.3
	Under \$1	3	329,204	98,983	30.07											74.2
	\$1 to \$2	8	1,035,471	403,034	38.92											96.0
	\$2 to \$3	10	1,138,028	494,286	43.43											107.2
	\$3 & over	12	1,397,427	745,259	54.90											135.5
\$180 & over	Total (Average)	14	5,704,723	1,598,795	28.03											69.2
	Under \$1	1	227,657	68,088	29.91											73.8
	\$1 to \$2	3	939,215	233,874	24.90											61.4
	\$2 to \$3	6	2,170,983	653,912	30.12											74.3
	\$3 & over	4	2,366,868	642,921	27.16											67.0

Average \$40.53

TABLE 240

TOTAL NET SALES, INVENTORY, AND AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Inventory	Inventory per \$100 of Total Net Sales												Actual	
					Amount	Per Cent.												
						Graphic												
						0	20	40	60	80	100	120	140	160				
Total (Average)	Total (Average)	149	\$8,973,664	\$3,898,010	\$43.44											100.0		
	Under \$1	26	890,067	400,630	45.01											103.6		
	\$1 to \$2	51	2,472,218	1,255,956	50.80											116.9		
	\$2 to \$3	34	2,172,982	933,301	42.95											98.9		
	\$3 & over	38	3,438,397	1,308,123	38.04											87.6		
Under \$40	Total (Average)	71	1,847,402	1,039,388	56.26											129.5		
	Under \$1	19	530,565	256,364	48.32											111.2		
	\$1 to \$2	25	653,085	393,294	60.22											138.6		
	\$2 to \$3	14	352,621	220,984	62.67											144.3		
	\$3 & over	13	311,131	168,746	54.24											124.9		
\$40 to \$80	Total (Average)	50	2,777,177	1,244,382	44.81											103.2		
	Under \$1	7	359,502	144,266	40.13											92.4		
	\$1 to \$2	20	1,118,235	534,335	47.78											110.0		
	\$2 to \$3	11	607,290	293,514	48.33											111.3		
	\$3 & over	12	692,150	272,267	39.34											90.8		
\$80 to \$180	Total (Average)	23	2,654,275	1,084,636	40.86											94.1		
	Under \$1	-	-	-	-											-		
	\$1 to \$2	6	700,898	328,327	46.84											107.8		
	\$2 to \$3	7	827,265	296,225	35.81											82.4		
	\$3 & over	10	1,126,112	460,084	40.86											94.1		
\$180 & over	Total (Average)	5	1,894,810	529,604	31.25											71.9		
	Under \$1	-	-	-	-											-		
	\$1 to \$2	-	-	-	-											-		
	\$2 to \$3	2	385,806	122,578	31.77											73.1		
	\$3 & over	3	1,309,004	407,026	31.09											71.6		

Average \$43.44

expenditure in relation to sales. These tables support the detail contained in Tables 232 to 235, inclusive.

In considering Table 230, it was pointed out that the amounts of inventories per \$100 of total net sales vary inversely with the amounts of advertising expenditure per \$100 of total net sales. But in this table, stores were not classified by size. When store-size is considered, as in Tables 237 to 240, inclusive, no such general tendency is observed. The larger the store, the smaller the inventories, but for stores of the same size, the amounts of inventory are substantially the same for stores having different amounts of advertising expenditure per \$100 of total net sales.* In other words, store-size is more important in determining the amount of inventory in relation to sales than is the amount of advertising expenditure.

In Tables 241 to 244, inclusive, the amounts expended for advertising are expressed in terms of selling expense for stores classified by size and by the amounts of their inventories in relation to sales. When the stores for the combined years are considered, it is found that the advertising expenditures per \$100 of selling expense increase, on the whole, as stores increase in size. The average for the three years for all the stores is \$21.27. For





















those stores with annual sales under \$40,000, it is \$19.79; for those with annual sales of \$40,000 to \$80,000, it is \$18.06; for those with annual sales of \$80,000 to \$180,000, it is \$21.67; and for those with annual sales of \$180,000 and over, \$22.53. When the entire group of stores is considered, irrespective of size, but in accordance with the amounts of inventory in relation to sales, advertising expenditures remain essentially constant proportions of selling expense. When the stores are classified by size, moreover, while the proportions increase as stores increase in size, they show no regular direction of change with changing inventories for the different size-groups. It is difficult to generalize with respect to them in view of the divergent tendencies. The tables give the detail for the combined and individual years. By means of the graphic summaries, the relationships which obtain between them may be readily compared.

It should be remembered in consulting these tables that a group of identical stores has been used. From year to year, however, the stores vary in sales and in the amounts of their inventories. Inventories, as a whole, were lower in 1918 than in 1914, and lower in 1919 than in either of the other years. Accordingly, as may be seen from Tables 242 to 244, inclusive, not only is the number of stores different from year to year in each of the size-groups, but also different in each of the inventory groups. The changes may be illustrated as follows: In 1914, 71 of the stores had sales

* For the stores with sales of \$80,000 to \$180,000, inventories per \$100 of sales increase with advertising per \$100 of sales in the combined years, and in 1919 and 1918. The same condition holds in 1919 and 1918 for the stores with sales of \$40,000 to \$80,000.

TABLE 241






















TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 149 IDENTICAL STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Store- years	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense										
					Amount	Per Cent.									Actual
						Graphic									
						0	20	40	60	80	100	120	140		
Total (Average)	Total (Average)	447	\$4,745,829	\$1,009,377	\$21.27										100.0
	Under \$20	14	172,900	36,654	21.20										99.7
	\$20 to \$40	168	3,088,085	655,340	21.22										99.8
	\$40 to \$60	177	1,128,967	243,739	21.59										101.5
	\$60 & over	88	355,877	73,644	20.69										97.3
Under \$40	Total (Average)	127	298,231	59,024	19.79										93.0
	Under \$20	1	948	228	24.05										113.1
	\$20 to \$40	18	54,036	9,477	17.54										82.5
	\$40 to \$60	52	112,294	26,112	23.25										109.3
	\$60 & over	56	130,953	23,207	17.72										83.3
\$40 to \$80	Total (Average)	165	877,524	158,486	18.06										84.9
	Under \$20	6	29,622	4,904	16.56										77.9
	\$20 to \$40	52	283,795	54,480	19.20										90.3
	\$40 to \$60	82	428,579	74,251	17.32										81.4
	\$60 & over	25	135,528	24,851	18.34										86.2
\$80 to \$180	Total (Average)	112	1,445,029	313,119	21.67										101.9
	Under \$20	5	53,399	8,305	15.55										73.1
	\$20 to \$40	60	802,575	156,342	19.48										91.6
	\$40 to \$60	40	499,659	122,886	24.59										115.6
	\$60 & over	7	89,596	25,586	28.62										134.6
\$180 & over	Total (Average)	43	2,125,045	478,748	22.53										105.9
	Under \$20	2	88,931	23,217	26.11										122.8
	\$20 to \$40	38	1,947,679	435,041	22.34										105.0
	\$40 to \$60	3	88,435	20,490	23.17										108.9
	\$60 & over	-	-	-	-										-

Average \$21.27

TABLE 242

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense											
					Amount	Per Cent.										Actual
						Graphic										
						0	20	40	60	80	100	120	140	160		
Total (Average)	Total (Average)	149	\$2,135,072	\$453,840	\$21.26											100.0
	Under \$20	7	105,711	24,173	22.87											107.6
	\$20 to \$40	83	1,649,518	348,645	21.14											99.4
	\$40 to \$60	51	345,965	73,301	21.19											99.7
	\$60 & over	8	33,878	7,721	22.79											107.2
Under \$40	Total (Average)	14	29,018	6,262	21.58											101.5
	Under \$20	-	-	-	-											-
	\$20 to \$40	2	6,275	895	14.26											67.1
	\$40 to \$60	8	15,797	4,334	27.44											129.1
	\$60 & over	4	6,946	1,033	14.87											69.9
\$40 to \$80	Total (Average)	55	235,843	38,705	16.55											77.8
	Under \$20	2	7,320	1,224	16.72											78.6
	\$20 to \$40	22	94,720	16,723	17.66											83.1
	\$40 to \$60	28	122,592	19,317	15.76											74.1
	\$60 & over	3	9,211	1,441	15.64											73.6
\$80 to \$180	Total (Average)	56	700,800	137,666	19.64											92.4
	Under \$20	4	34,307	3,573	10.41											49.0
	\$20 to \$40	37	465,124	84,725	18.22											85.7
	\$40 to \$60	14	183,648	44,121	24.02											113.0
	\$60 & over	1	17,721	5,247	29.61											139.3
\$180 & over	Total (Average)	24	1,171,411	271,207	23.15											108.9
	Under \$20	1	64,084	19,376	30.24											142.2
	\$20 to \$40	22	1,083,399	246,302	22.73											106.9
	\$40 to \$60	1	23,928	5,529	23.11											108.7
	\$60 & over	-	-	-	-											-

Average \$21.26

under \$40,000. In 1918, there were 42 with sales of this amount, and in 1919 there were 14. Moreover, in 1914, 29 or 41 per cent. of the 71 stores, had inventories of \$60 and over. In 1918, 23, or 55 per cent.

of the 42 stores, had inventories of this size, and in 1919, 4, or 29 per cent. of the 14 stores, had inventories of this size. Similar changes in other groups characterize the stores from year to year.

TABLE 243

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense												
					Amount	Per Cent.											Actual
						Graphic											
						0	20	40	60	80	100	120	140	160	180		
Total (Average)	Total (Average)	149	\$1,573,249	\$319,845	\$20.33												100.0
	Under \$20	3	32,117	4,960	15.44												75.9
	\$20 to \$40	46	937,441	185,038	19.53												96.1
	\$40 to \$60	60	427,462	95,288	22.29												109.8
	\$60 & over	40	176,229	36,559	20.75												102.1
Under \$40	Total (Average)	42	101,621	19,197	18.89												92.9
	Under \$20	-	-	-	-												-
	\$20 to \$40	6	17,520	3,875	22.12												106.8
	\$40 to \$60	13	27,892	6,486	23.25												114.4
	\$60 & over	23	56,209	8,836	15.72												77.3
\$40 to \$80	Total (Average)	60	331,968	67,778	17.41												85.6
	Under \$20	2	7,270	1,119	15.39												75.7
	\$20 to \$40	15	97,097	15,355	15.81												77.8
	\$40 to \$60	29	144,693	26,154	18.08												88.9
	\$60 & over	14	82,898	15,150	18.28												89.9
\$80 to \$120	Total (Average)	33	422,051	94,527	22.49												110.6
	Under \$20	-	-	-	-												-
	\$20 to \$40	14	194,559	34,667	17.82												87.7
	\$40 to \$60	16	190,370	47,687	25.05												123.2
	\$60 & over	3	37,122	12,573	33.87												166.6
\$120 & over	Total (Average)	14	717,619	147,943	20.62												101.4
	Under \$20	1	24,847	3,841	15.46												76.0
	\$20 to \$40	11	628,265	129,141	20.56												101.1
	\$40 to \$60	2	64,507	14,961	23.19												114.1
	\$60 & over	-	-	-	-												-

Average \$20.33

Another group of stores, somewhat larger than that considered above, is available in 1919 for the study of advertising expenses in relation to sales and selling expense. The details for this study are contained in Tables 245 and 246. The stores are classified by size and by the amounts of inventory per \$100 of total net sales.

In Table 245 for 282 stores, the advertising expenditure per \$100 of total net sales is \$2.25. For 149 stores, as shown in Table 233, the corresponding figure was \$2.24. As the stores increase in size, the amounts expended for advertising per \$100 of total net sales increase. In spite of the fact that approximately twice as many stores as in Table 233 are here considered, the differences in the amounts are small. This suggests again the fact that the experience available for study, even with the fewer stores, is adequate for safe generalization.

In Table 245, the amounts of advertising expenditure are measured in terms of sales alone and also in terms of sales per stock turnover.* It is this latter measure which is of primary interest in this connection. The average amount expressed in this manner for the entire group of stores is \$1.02. The smallest amount, characterizing the stores with sales between \$40,000 and \$80,000, is \$0.76. The largest amount, applying to the stores with sales of \$80,000 to \$180,000, is \$1.05. Over the entire range

* The method by which this unit is computed is explained on page 4, item 19.

of sizes, the amounts increase as the stores increase in size, but by a lesser percentage than they do when expressed in terms of sales alone. That is, stock turnover in stores of increasing size acts as a compensating factor to the increased expenditures for advertising, measured in terms of sales alone.
























Interest lies, however, not only in the amounts for stores of different size, but also in those for stores of a given size, but with different amounts of inventory per \$100 of total net sales. For the stores as a whole, and when classified by size, advertising expenditures per \$100 of total net sales per stock turnover increase with the amounts of inventory per \$100 of total net sales. That is, large inventories in 1919 in relation to sales correspond to large advertising expenditures per \$100 of total net sales per stock turnover, and small inventories per \$100 of total net sales correspond to small advertising expenditures per unit of sales per stock turnover.

The value of Table 245 lies in the use of the more complex method of expressing advertising, since by this measure the variations in the turnover rates in the different stores are reduced to a unit basis. This table by itself and in connection with Table 233 merits careful study.

Table 246 shows for the 282 stores, classified as in Table 245, the amounts of advertising expenditure in terms of selling expense alone and of selling expense per stock turnover. While the amounts of advertising per \$100 of selling expense tend neither to

TABLE 244

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 149 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Advertising	Advertising, per \$100 of Selling Expense							
					Amount	Per Cent.						Actual
						Graphic						
						0	20	40	60	80	100	
Total (Average)	Total (Average)	149	\$1,037,508	\$235,692	\$22.72							100.0
	Under \$20	4	35,072	7,521	21.44							94.4
	\$20 to \$40	39	501,126	123,657	24.68							108.6
	\$40 to \$60	66	355,540	75,150	21.14							93.0
	\$60 & over	40	145,770	29,364	20.14							88.6
Under \$40	Total (Average)	71	167,592	33,565	20.03							88.2
	Under \$20	1	948	228	24.05							105.9
	\$20 to \$40	10	30,241	4,707	15.56							68.5
	\$40 to \$60	31	68,605	15,292	22.29							98.1
	\$60 & over	29	67,798	13,338	19.67							86.6
\$40 to \$80	Total (Average)	50	311,723	62,003	19.89							87.5
	Under \$20	2	15,032	2,561	17.04							75.0
	\$20 to \$40	15	91,978	22,402	24.36							107.2
	\$40 to \$60	25	161,294	28,780	17.84							78.5
	\$60 & over	8	43,419	8,260	19.02							83.7
\$80 to \$180	Total (Average)	23	322,178	80,526	24.99							110.0
	Under \$20	1	19,092	4,732	24.79							109.1
	\$20 to \$40	9	142,892	36,950	25.86							113.8
	\$40 to \$60	10	125,641	31,078	24.74							108.9
	\$60 & over	3	34,553	7,766	22.48							98.9
\$180 & over	Total (Average)	5	236,015	59,598	25.25							111.1
	Under \$20	-	-	-	-							-
	\$20 to \$40	5	236,015	59,598	25.25							111.1
	\$40 to \$60	-	-	-	-							-
	\$60 & over	-	-	-	-							-

Average \$22.72

increase nor to decrease regularly as inventories increase, the amounts per \$100 of selling expense per stock turnover * rapidly increase with an increase in the size of the inventory in terms of sales. This is true not only for all stores, but also for stores of a given size.

From Tables 232 to 246, inclusive, it may be concluded as follows: First, advertising expenditures per

* The method by which this unit is computed is explained on page 4, item 21.

\$100 of total net sales increase as stores increase in size. Second, advertising expenditures per \$100 of total net sales for stores irrespective of size decrease as the amounts of inventory per \$100 of total net sales increase. Third, for stores of a given size, but with different amounts of inventory in relation to sales, the direction of advertising expenditures per \$100 of total net sales, while tending on the whole to increase with the size of the inventories, is uncer-

TABLE 245

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Advertising per \$100 of Total Net Sales										Advertising per \$100 of Total Net Sales per Stock Turnover																																								
			Amount	Per Cent.										Amount	Per Cent.																																						
				Graphic											Graphic																																						
			Amount	0	20	40	60	80	100	120	140	Actual		0	20	40	60	80	100	120	140	160	180	200	Actual																												
Total (Average)	Total (Average)	292	\$2.25											100.0	\$1.02											100.0																											
	Under \$20	17	2.29											101.3	0.52											51.0																											
	\$20 to \$40	153	2.39											106.2	1.00											98.0																											
	\$40 & over	112	1.81											80.4	1.29											126.3																											
Under \$40	Total (Average)	38	1.17											52.0	0.78											76.5																											
	Under \$20	-	-											-	-											-																											
	\$20 to \$40	10	1.06											47.1	0.50											49.0																											
	\$40 & over	23	1.25											54.7	0.95											93.1																											
\$40 to \$80	Total (Average)	106	1.57											80.9	0.76											74.5																											
	Under \$20	3	1.39											81.8	0.53											32.4																											
	\$20 to \$40	43	1.48											65.8	0.67											65.7																											
	\$40 & over	60	1.28											56.9	0.85											83.3																											
\$80 to \$120	Total (Average)	96	2.00											53.9	1.05											102.9																											
	Under \$20	6	0.81											56.0	0.19											18.6																											
	\$20 to \$40	63	1.91											84.9	0.87											85.3																											
	\$40 & over	30	2.34											104.0	1.55											152.9																											
\$120 & over	Total (Average)	48	2.80											124.4	1.00											98.0																											
	Under \$20	9	2.65											113.5	0.67											55.9																											
	\$20 to \$40	35	2.87											127.8	1.10											107.8																											
	\$40 & over	1	2.36											105.6	1.98											194.1																											
Average \$2.25																											Average \$1.02																										

TABLE 246

AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE PER STOCK TURNOVER, FOR
STORES CLASSIFIED BY SIZE AND BY AMOUNT OF INVENTORY PER
\$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Inventory per \$100 of Total Net Sales	Number of Stores	Advertising per \$100 of Selling Expense										Advertising per \$100 of Selling Expense per Stock Turnover																																								
			Amount	Per Cent.										Amount	Per Cent.										Actual																												
				Graphic											Graphic																																						
				0	20	40	60	80	100	120	140	160	180	200	0	20	40	60	80	100	120	140	160	180	200																												
Total (Average)	Total (Average)	282	\$22.15											100.0	\$10.07											100.0																											
	Under \$20	17	25.29											114.1	5.75											57.1																											
	\$20 to \$40	153	22.14											100.0	9.23											91.7																											
	\$40 & over	112	20.50											92.6	14.64											145.4																											
Under \$40	Total (Average)	33	19.59											89.4	13.06											129.7																											
	Under \$20	-	-											-	-											-																											
	\$20 to \$40	10	18.65											84.1	8.87											89.1																											
	\$40 & over	23	20.01											90.3	15.39											152.8																											
\$40 to \$80	Total (Average)	106	18.59											85.0	10.22											101.5																											
	Under \$20	3	23.70											107.0	5.64											56.0																											
	\$20 to \$40	45	20.73											95.6	9.42											95.5																											
	\$40 & over	58	16.36											75.9	10.91											108.3																											
\$80 to \$180	Total (Average)	98	19.71											89.0	10.37											105.0																											
	Under \$20	5	9.22											41.6	2.20											21.8																											
	\$20 to \$40	63	19.62											84.1	8.46											84.0																											
	\$40 & over	30	23.15											104.4	15.42											155.1																											
\$180 & over	Total (Average)	45	24.62											111.2	6.79											87.3																											
	Under \$20	9	27.52											124.2	6.12											60.8																											
	\$20 to \$40	35	24.06											108.6	9.25											91.9																											
	\$40 & over	1	23.11											104.3	19.26											191.3																											
Average \$22.15																											Average \$10.07																										

tain for some of the groups in the different years. Fourth, when the amounts of advertising expenditure are expressed per \$100 of total net sales for the amounts sold per \$1 of inventory, they decreased between 1914 and 1918, and 1918 and 1919, for stores classified by size. Fifth, expenditures for advertising per \$100 of total net sales for the amount sold per \$1 of inventory increase as the amounts of inventory per \$100 of total net sales increase. This condition holds for stores treated

as a whole and when classified by size. Sixth, the amounts of inventory per \$100 of total net sales for stores considered irrespective of size decrease as the amounts of advertising per \$100 of total net sales increase. When the stores are classified by size, the amounts of inventory per \$100 of total net sales neither increase nor decrease regularly as the amounts of advertising expended per \$100 of total net sales increase. Seventh, advertising expenditures per \$100 of selling expense increase as stores in-

crease in size. Eighth, the amounts of advertising per \$100 of selling expense, for stores considered irrespective of size, remain essentially constant for one group—149—and decrease for another group—282—of stores, as inventories in relation to sales increase. When stores are classified by size, the direction of change in the amounts is uncertain. The tendency for some of the groups is for the amounts to increase and for others to decrease as inventories in relation to sales increase.

C.—Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales, for Stores Classified by Rates of Stock Turnover and by Size, 1919.

For 1919 the records of 282 stores are available for a study of the amounts of advertising expenditures per \$100 of total net sales for stores classified by rates of stock turnover and by size. In Table 247 the stores are classified by size and by rates of stock turnover. In Table 248 they are classified by the size of city in which they are located, and by rates of stock turnover, store-size being ignored.

For the 282 stores, as shown in Table 247, the average expenditure for advertising per \$100 of total net sales is \$2.25. For the stores which turned their stock less than once, it is \$1.72. From this amount as a minimum, the expenditures increase to \$2.59 for stores which turned their stock four times and over. For the stores with a given rate of turnover,

advertising expenditures per \$100 of total net sales increase as the stores increase in size. That is, the amounts of advertising per \$100 of total net sales vary directly with the size of the store, this condition obtaining not only for the group treated as a total, but also when it is classified by the rates at which stock is turned. In the detail in which the data are shown, there are too few instances in a number of places to secure a satisfactory average. The data, however, are shown in this form because it is thought desirable to give standard expenditures in this particular for stores classified according to the conditions which seem to determine the amounts. It is not contended, of course, that a causal connection is shown between the amounts of advertising expenditure and stock turnover. The association between these facts, however, is so unmistakable as to suggest, if not a causal, at least a related connection.

In Table 248, the same 282 stores are classified by location and by rates of stock turnover. For the stores arranged in this form, two methods of expressing the amounts of advertising are used: First, they are given in terms of sales; and, second, in terms of sales per stock turnover.

For the 204 stores in the small cities, the average amount of expenditure per \$100 of total net sales is \$1.59. For the group of stores, when classified by the rates of stock turnover, the amounts decrease generally as the stock turnover rates increase. For the 78 stores located in the large

TABLE 247

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR STORES CLASSIFIED BY RATES OF STOCK TURN-OVER AND BY SIZE OF STORE, 1919

Rates of Stock Turnover	Classified Total Net Sales (in 000's)	Number of Stores	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales										
					Amount	Per Cent.									
						Graphic								Actual	
						0	20	40	60	80	100	120	140		
Total (Average)	Total (Average)	282	\$35,563,014	\$799,944	\$2.25									100.0	
	Under \$40	33	1,012,152	11,888	1.17									52.0	
	\$40 to \$80	106	6,020,400	82,543	1.37									60.9	
	\$80 to \$180	98	11,667,072	233,690	2.00									88.9	
	\$180 & over	45	16,863,390	471,823	2.80									124.4	
Under 1	Total (Average)	9	601,109	10,346	1.72									76.4	
	Under \$40	2	64,787	719	1.11									49.3	
	\$40 to \$80	4	226,698	3,567	1.57									69.8	
	\$80 to \$180	3	309,624	6,060	1.96									87.1	
	\$180 & over	-	-	-	-									-	
1 to 2	Total (Average)	136	11,010,775	209,205	1.90									84.4	
	Under \$40	19	570,712	7,328	1.28									56.9	
	\$40 to \$80	66	3,571,041	49,604	1.39									61.8	
	\$80 to \$180	45	5,487,136	122,893	2.24									99.6	
	\$180 & over	6	1,381,886	29,380	2.13									94.7	
2 to 3	Total (Average)	100	15,987,018	389,788	2.44									108.4	
	Under \$40	12	376,653	3,841	1.02									45.3	
	\$40 to \$80	26	1,561,875	21,447	1.37									60.9	
	\$80 to \$180	40	4,663,355	89,307	1.92									85.3	
	\$180 & over	22	9,385,135	275,193	2.93									130.2	
3 to 4	Total (Average)	23	4,443,953	99,583	2.24									99.6	
	Under \$40	-	-	-	-									-	
	\$40 to \$80	8	510,510	6,701	1.31									58.2	
	\$80 to \$180	5	617,557	8,688	1.41									62.7	
	\$180 & over	10	3,315,886	84,194	2.54									112.9	
4 & over	Total (Average)	14	3,520,159	91,022	2.59									115.1	
	Under \$40	-	-	-	-									-	
	\$40 to \$80	2	150,276	1,224	0.81									36.0	
	\$80 to \$180	5	589,400	6,742	1.14									50.7	
	\$180 & over	7	2,780,483	83,056	2.99									132.9	

Average \$2.25

cities, the average expenditure for advertising in relation to sales is \$2.85. When this group is classified further by rates of stock turnover, the amounts increase as stock turnover rates increase.

When advertising expenditures in relation to sales are expressed on a per turn basis, the average amount for the 204 stores in the small cities is \$0.84 and for the 78 stores in the large cities, \$1.10. For both groups as located, the amounts, of course decrease as the rates of stock turnover increase. For the stores in the small cities which turned their stock less

than once, the average amount is \$2.11, and from this as a maximum, the expenditures decrease to \$0.19 for those which turned their stock four times and over. For the stores in the large cities, if the single store which turned its stock less than once is excepted, the expenditures for advertising decrease from \$1.75 for those that turned their stock one to two times, to \$0.66 for those that turned their stock four times and over. There is an advantage in expressing the amounts of advertising in relation to sales per single turn, inasmuch as by this method the data are made

TABLE 248

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE OF CITY AND BY RATES OF STOCK TURNOVER, 1919

Size of City (in 000's)	Rates of Stock Turnover	Number of Stores	Advertising per \$100 of Total Net Sales							Advertising per \$100 of Total Net Sales per Stock Turnover								
			Amount	Per Cent.						Amount	Per Cent.							
				Graphic							Graphic							
				0	20	40	60	80	100		120	140	160	0	20	40	60	80
Total (Average)	Total (Average)	282	\$2.25							100.0	\$1.02							100.0
	Under 1	9	1.72							76.4	2.29							224.6*
	1 to 2	156	1.90							84.4	1.19							116.7
	2 to 3	100	2.44							109.4	0.98							96.1
	3 to 4	23	2.24							99.6	0.66							64.7
	4 & over	14	2.59							115.1	0.54							52.9
Under 40	Total (Average)	204	1.59							70.7	0.84							82.4
	Under 1	8	1.58							70.2	2.11							206.9*
	1 to 2	120	1.75							77.8	1.09							106.9
	2 to 3	59	1.54							68.4	0.64							72.7
	3 to 4	10	1.22							54.2	0.36							35.3
	4 & over	7	0.87							35.7	0.19							18.5
40 and over	Total (Average)	78	2.65							126.7	1.10							107.8
	Under 1	1	2.90							128.9	5.87							379.4*
	1 to 2	16	2.62							116.4	1.75							171.6
	2 to 3	41	2.04							128.2	1.14							111.8
	3 to 4	13	2.63							116.9	0.77							76.5
	4 & over	7	2.20							146.7	0.65							64.7
			Average \$2.25							Average \$1.02								

*Full length not shown

TABLE 249

COST OF MERCHANDISE SOLD, AVERAGE INVENTORY, 1918 AND 1919, AND AVERAGE ANNUAL STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919

Size of City (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Cost of Merchandise Sold	Average Inventory 1918 & 1919	Average Annual Stock Turnover		
					Rate	Per Cent.	
						Graphic	Actual
						0 20 40 60 80 100 120	
Total (Average)	Total (Average)	282	\$23,853,258	\$10,940,467	2.2		100.0
	Under \$1	79	4,186,022	2,041,793	2.1		95.5
	\$1 to \$2	100	5,733,595	3,350,806	2.0		90.9
	\$2 to \$3	66	7,445,518	3,280,090	2.3		104.5
	\$3 & over	37	5,468,123	2,267,798	2.4		109.1
Under 40	Total (Average)	204	11,492,072	6,167,981	1.9		86.4
	Under \$1	72	3,598,129	1,806,214	2.0		90.9
	\$1 to \$2	79	4,395,340	2,428,494	1.8		61.8
	\$2 to \$3	39	2,717,964	1,469,938	1.8		61.8
	\$3 & over	14	780,639	463,335	1.7		77.3
40 and over	Total (Average)	78	12,361,186	4,772,506	2.6		118.2
	Under \$1	7	587,893	235,579	2.5		113.6
	\$1 to \$2	21	2,338,255	922,312	2.5		113.6
	\$2 to \$3	27	4,727,554	1,810,152	2.6		118.2
	\$3 & over	23	4,707,484	1,804,463	2.6		118.2

Average 2.2

directly comparable. The contrasts which obtain between stores of different location, but with uniform rates of stock turnover, are shown by amounts in Table 248, and it is unnecessary to review them in detail.

In Table 249, the actual annual rates of stock turnover are shown for stores as classified in Table 248. This table is inserted primarily for the purpose of supplying the details used to calculate, in Table 248, the advertising expenditures per \$100 of total net sales per turn.

D.—Summary.

- (1). The amounts of advertising expenditure per \$100 of total net sales generally decrease as the inventories per \$100 of total net sales increase. This holds only when stores are classified without regard to size. For stores of a given size, the direction of change is uncertain.
- (2). The amounts of advertising expenditure per \$100 of total

net sales for the amount sold per \$1 of inventory increase as the size of the inventory in terms of sales increases. This is true for all stores and for stores of a given size.

- (3). For stores with a given amount of inventory per \$100 of total net sales, the amounts of advertising per \$100 of total net sales decreased between 1914 and 1918, and 1918 and 1919.
- (4). For stores considered without regard to size, inventories in terms of sales decrease as the amounts of advertising per \$100 of total net sales increase. For stores of a given size, they remain essentially constant as advertising expenditures increase.
- (5). The proportion of selling expense attributable to advertising tends neither to increase nor to decrease as the inventories in terms of sales increase.
- (6). The amounts of advertising expenditure per \$100 of total net sales per stock turnover increase as the inventories in terms of sales increase.
- (7). The amounts of advertising expenditure per \$100 of selling expense per stock turnover increase as the inventories in terms of sales increase.
- (8). For stores with a given rate of stock turnover, advertising

expenditures in terms of sales increase as the stores increase in size.

- (9). For stores with a given rate of stock turnover, the amounts of advertising, measured in terms of sales alone and of both sales and turnover, are higher in large than in small cities.

3.—YEARLY AMOUNTS OF EXPENDITURE FOR ADVERTISING IN RELATION TO THE AMOUNTS OF GOODS SOLD PER FULL-TIME SALES-PERSON.

The present discussion, which has to do with the amounts expended for advertising, corresponds to the similar sections relating to selling expense and to wages and salaries, with the exception that tables reflecting the amounts of expenditure under different conditions of wage payment, are omitted.

For the analysis of the amounts of expenditure for advertising in relation to sales per full-time sales-person, the records of 146 stores in each of the years 1914, 1918, and 1919 are available for study.

A.—Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales and per \$100 of Selling Expense, 1919, 1918, and 1914.

The stores are classified in Tables 250 and 251, first, by years, and second, by the amounts sold per full-time sales-person. Two methods of expressing the advertising expenditures are used. The amounts are shown, first, for each \$100 of total net

sales or selling expense, as the case may be, and second, per \$100 total net sales or selling expense per \$1,000 sold for each full-time sales-person.*

For the combined years, representing the experience of 438 store-years, the average expenditure for advertising per \$100 of total net sales is \$2.28. For 1914 the amount was

* The methods by which these units are computed are explained on page 4, items 22 and 24.

\$2.57; for 1918, \$2.22; and for 1919, \$2.20. When the expenditures are expressed in a unit of sales for each \$1,000 sold per full-time sales-person, the average amount for the combined years is \$0.14. For 1914 it was \$0.23; for 1918, \$0.14; and for 1919, \$0.11. It will be observed that the expenditures for advertising measured in terms of sales alone decreased between 1914 and 1918, and 1918 and 1919, respectively, by 14 and 1 per

TABLE 250

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919, 1918, AND 1914

Years	Amount of Sales per Full-time Sales-person (in 000's)	Number of Store-years	Advertising per \$100 of Total Net Sales												Advertising per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.											Actual	Amount	Per Cent.											Actual
				Graphic													Graphic											
				0	20	40	60	80	100	120	0	20	40	60	80		100	120	140	160	180	200						
Total (Average)	Total (Average)	438	\$2.28												100.0	\$0.14												100.0
	Under \$12	151	2.32												101.8	0.25												178.6
	\$12 to \$16	107	2.12												93.0	0.15												107.1
	\$16 to \$24	118	2.27												99.6	0.12												85.7
	\$24 to \$32	39	2.31												110.1	0.09												64.3
	\$32 & over	23	2.24												96.2	0.06												42.9
1919	Total (Average)	146	2.20												96.5	0.11												78.6
	Under \$12	15	2.27												99.6	0.23												164.3
	\$12 to \$16	30	1.56												68.4	0.11												78.6
	\$16 to \$24	61	2.05												89.9	0.10												71.4
	\$24 to \$32	21	2.69												118.0	0.10												71.4
	\$32 & over	19	2.31												101.3	0.06												42.9
1918	Total (Average)	146	2.22												97.4	0.14												100.0
	Under \$12	50	1.97												86.4	0.19												135.7
	\$12 to \$16	42	2.10												92.1	0.16												114.3
	\$16 to \$24	37	2.49												109.2	0.13												92.9
	\$24 to \$32	14	1.90												83.3	0.07												50.0
	\$32 & over	3	1.67												73.2	0.04												26.6
1914	Total (Average)	146	2.57												112.7	0.23												164.3
	Under \$12	86	2.52												110.5	0.28												200.0
	\$12 to \$16	35	2.62												114.9	0.19												135.7
	\$16 to \$24	20	2.73												119.7	0.15												107.1
	\$24 to \$32	4	2.30												100.9	0.08												57.1
	\$32 & over	1	0.35												15.4	0.01												7.1

Average \$2.28

Average \$0.14

cent. Between 1914 and 1918, and 1918 and 1919, the amounts per \$1,000 sold per full-time sales-person decreased by \$0.09 and \$0.03, or by 39 and 21 per cent., respectively. This more rapid decrease in the amounts from year to year is directly attributable to the increase in the amounts sold per full-time sales-person. In 1914, 1918, and 1919, respectively, these amounts were, on the average, \$11,345, \$15,613, and \$20,437.

When the stores are classified as in Table 250, there seems to be no definite tendency in each of the different years for the amounts of advertising per \$100 of total net sales to increase or to decrease as the amounts sold per full-time sales-person increase. When the amounts are expressed in terms of sales per \$1,000 sold for a full-time sales-person, however, they decrease in each of the years as the sales per full-time sales-person increase. By expressing the amounts in this form, they become directly comparable, inasmuch as both advertising and sales are reduced to a unit basis. The sizes of the decreases from year to year are found in the graphic and tabular parts of Table 250.

In Table 251, the advertising expenditures are shown for stores classified as in Table 250. The amounts, however, are given, first, as proportionate parts of selling expense, and second, as proportionate parts reduced to a per \$1,000 basis of sales per full-time sales-person. Brief consideration should be given to this table.

For the combined years, advertising expenditures constitute \$21.18 of every \$100 of selling expense, or, expressed as a percentage, they represent 21.18 per cent. of selling expense. In 1914, 1918, and 1919, the corresponding percentages were 22.64, 20.28, and 21.15. That is, they decreased between 1914 and 1918, and increased between 1918 and 1919. When the expenditures are further expressed in terms of \$1,000 sold per full-time sales-person, the average amount for the three years is \$1.31. In 1914 it was \$2.00; in 1918, \$1.30; and in 1919, \$1.03. That is, between 1914 and 1918, and 1918 and 1919, the amounts decreased.

When the stores in each of the years are classified as in Table 251 by the amounts sold per full-time sales-person, the advertising expenditures, as proportionate parts of selling expense, neither increase nor decrease regularly as the sales per full-time sales-person increase. The general tendency, however, is for them to increase. When they are computed for each \$1,000 sold per full-time sales-person, they decrease as sales per full-time sales-person increase. By the use of this more refined unit, the stores from year to year and from group to group are more readily compared because the expenditures for advertising and the sales are reduced to a unit basis. The nature of the amounts with the increases from year to year and from group to group are shown in tabular and graphic form in Table 251.

B.—Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size, 1919, 1918, and 1914.

For the discussion of the amounts of advertising expenditures for stores of different size and with different amounts of sales per full-time sales-person, the records of 146 stores are available for study from year to year,

while for 1919 alone the records of 269 stores may be used. Attention is given, first, to the larger group of stores, and second, to the stores which are identical from year to year.

Based upon the records of 269 stores for 1919, as shown in Table 252, the average amount of advertising expenditure per \$100 of total net sales was \$2.25. As the stores increase in size, the expenditures increase, the minimum being \$1.13, for

TABLE 251

AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES, CLASSIFIED BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919, 1918, AND 1914

Years	Amount of Sales per Full-time Sales-person (in 000's)	Number of Store-years	Advertising per \$100 of Selling Expense								Advertising per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person																			
			Amount	Per Cent.								Amount	Per Cent.																	
				Graphic									Graphic																	
				0	20	40	60	80	100	120	140		Actual	0	20	40	60	80	100	120	140	160	180	200	Actual					
Total (Average)	Total (Average)	438	\$21.18									100.6	\$1.31																	100.0
	Under \$12	151	20.76									98.0	2.21																	156.7
	\$12 to \$16	107	19.35									91.4	1.41																	107.6
	\$16 to \$24	118	20.22									95.5	1.06																	80.9
	\$24 to \$32	39	24.96									117.8	0.91																	69.5
	\$32 & over	23	26.68									126.9	0.72																	55.0
1919	Total (Average)	146	21.15									99.9	1.03																	78.6
	Under \$12	15	24.51									116.2	2.53																	193.1
	\$12 to \$16	30	15.34									72.5	1.10																	84.0
	\$16 to \$24	61	18.11									85.5	0.96																	73.3
	\$24 to \$32	21	26.91									127.1	0.96																	74.6
	\$32 & over	19	26.62									126.6	0.72																	55.0
1918	Total (Average)	146	20.28									95.8	1.30																	99.2
	Under \$12	50	19.22									90.7	1.89																	144.3
	\$12 to \$16	42	13.57									89.1	1.39																	106.1
	\$16 to \$24	37	21.91									105.4	1.10																	84.0
	\$24 to \$32	14	18.85									88.9	0.69																	58.7
	\$32 & over	3	29.90									142.2	0.80																	61.1
1914	Total (Average)	146	22.64									106.9	2.00																	152.7
	Under \$12	66	20.99									99.1	2.54																	179.6
	\$12 to \$16	35	23.38									110.4	1.67																	127.5
	\$16 to \$24	20	27.85									151.6	1.49																	115.7
	\$24 to \$32	4	20.17									96.9	0.73																	55.7
	\$32 & over	1	12.45									58.8	0.33																	25.2

Average \$1.18

Average \$1.31

the stores with sales under \$40,000, and the maximum \$2.81 for those with sales of \$180,000 and over. When the amounts are expressed per \$100 of total net sales per stock turnover, the average for the entire group is \$1.02. As the stores increase in size, the expenditures for advertising in terms of both sales and stock turnover increase from a minimum of \$0.75, for the group of stores with sales under \$40,000, to \$1.06 for those with sales of \$80,000 to \$180,000.

When the stores are further classified by the amounts sold per full-time sales-person, the expenditures for advertising, expressed in terms of sales, do not show a tendency to increase or to decrease regularly as the amounts sold per full-time sales-person increase. In some of the store-groups the number of instances are too few to serve as a basis for generalization. The averages, however, are inserted as representing the standards determined for the stores as classified.

When the expenditures are shown for each \$100 of total net sales per stock turnover, the amounts for each store-group generally decrease as the amounts sold per full-time sales-person increase. To this general rule, however, there are numerous exceptions, although, as a general principle, the turnover rates, which accompany large sales per full-time sales-person, are of sufficient size in most instances to reduce the expenditures expressed in this form. The actual amounts, together with the increases or de-

creases, are shown in tabular and graphic form in Table 252.

For the 269 stores, advertising expenditures per \$100 of total net sales, reduced to a basis of \$1,000 sold per full-time sales-person, are shown in Table 253. Expressed in this manner, the average amount for the entire group is \$0.11. For the stores that had sales of less than \$40,000, the average is \$0.07, and from this as a minimum the amounts increase to \$0.12 as a maximum for the stores with sales of \$180,000 and over. For the stores considered as a whole, and when classified by size, the expenditures decrease as the amounts sold per full-time sales-person increase. It is unnecessary to name these amounts inasmuch as they are contained in the table, the graphic summary of which makes a comparison of them easy.

In Table 254 a somewhat different form of analysis is presented. The table shows the amounts of sales (in dollars) secured per \$100 of advertising expenditure.* For the 269 stores, the average is \$4,435. For those with sales under \$40,000, it is \$8,880, and from this as a maximum the amounts decrease to \$3,557 for stores with sales of \$180,000 and over. That is, the sales secured for each \$100 expended for advertising decrease as the stores increase in size. When the stores are classified by size and by the amounts sold per full-time sales-person, the sales secured for each \$100 of advertising tend, on

* The method by which this unit is computed is explained on page 4, item 11.

TABLE 252

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER, FOR
STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER
FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Total Net Sales										Advertising per \$100 of Total Net Sales per Stock Turnover													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
			Amount	0	20	40	60	80	100	120	140	160	Actual	Amount	0	20	40	60	80	100	120	140	160	Actual		
Total (Average)	Total (Average)	269	\$2.25											100.0	\$1.02											100.0
	Under \$12	30	2.10											93.3	1.24											121.6
	\$12 to \$16	56	1.69											76.1	0.80											78.4
	\$16 to \$24	103	2.17											96.4	1.09											106.9
	\$24 to \$32	44	2.36											104.4	0.98											96.1
Under \$40	\$32 & over	36	2.89											128.4	1.05											101.0
	Total (Average)	31	1.13											50.2	0.75											75.5
	Under \$12	9	1.32											58.7	0.94											92.2
	\$12 to \$16	4	0.91											40.4	0.51											50.0
	\$16 to \$24	7	0.82											36.4	0.63											61.8
\$40 to \$80	\$24 to \$32	7	0.75											33.3	0.44											45.1
	\$32 & over	4	2.02											89.8	1.26											123.5
	Total (Average)	103	1.37											60.9	0.76											74.5
	Under \$12	16	1.42											63.1	0.95											93.1
	\$12 to \$16	34	1.67											74.2	0.98											96.1
\$80 to \$180	\$16 to \$24	31	1.12											49.8	0.62											60.8
	\$24 to \$32	9	1.27											56.4	0.60											58.8
	\$32 & over	13	1.18											52.4	0.62											60.8
	Total (Average)	92	2.01											89.5	1.06											105.9
	Under \$12	4	5.55											148.9	1.76											178.5
\$180 & over	\$12 to \$16	15	1.91											84.9	0.96											94.1
	\$16 to \$24	50	1.94											86.2	1.08											105.9
	\$24 to \$32	14	1.97											87.6	0.94											92.2
	\$32 & over	9	2.13											94.7	0.76											74.5
	Total (Average)	43	2.81											124.9	1.04											102.0
\$180 & over	Under \$12	1	2.81											124.9	1.12											109.8
	\$12 to \$16	3	1.52											67.6	0.52											61.0
	\$16 to \$24	15	2.81											124.9	1.08											105.9
	\$24 to \$32	14	2.56											118.2	1.02											100.0
	\$32 & over	10	3.49											155.1	1.09											106.9
Average \$2.25													Average 1.02													

Average \$2.25

Average \$1.02

the whole, to increase as the amounts sold per full-time sales-person increase. This is not true for the stores treated irrespective of size, nor for all of the groups as classified in this form. Generally speaking, however, there is a direct relation between the

sales secured per \$100 of advertising and the amount of goods sold per full-time sales-person. The actual amounts and the changes from group to group are shown in Table 254.

The foregoing discussion relates to the records of 269 stores for the year

TABLE 253

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER
FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE AND BY
AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Total Net Sales										Advertising per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person																	
			Amount	Per Cent.										Amount	Per Cent.															
				Graphic											Graphic															
				0	20	40	60	80	100	120		0	20	40	60	80	100	120	140	160	180	200								
Total (Average)	Total (Average)	269	\$2.25											100.0	\$0.11															100.0
	Under \$12	30	2.10											93.3	0.21															190.9
	\$12 to \$16	56	1.69											75.1	0.12															109.1
	\$16 to \$24	103	2.17											96.4	0.11															100.0
	\$24 to \$32	44	2.35											104.4	0.09															81.9
Under \$20	\$32 & over	36	2.09											128.4	0.07															63.6
	Total (Average)	31	1.13											50.2	0.07															63.6
	Under \$12	9	1.32											58.7	0.13															119.2
	\$12 to \$16	4	0.91											40.4	0.06															54.5
	\$16 to \$24	7	0.82											36.4	0.04															36.4
\$40 to \$80	\$24 to \$32	7	0.78											33.3	0.03															27.3
	\$32 & over	4	2.02											89.8	0.06															54.5
	Total (Average)	103	1.37											60.9	0.08															72.7
	Under \$12	16	1.42											63.1	0.14															127.3
	\$12 to \$16	34	1.67											74.2	0.12															109.1
\$80 to \$120	\$16 to \$24	31	1.12											49.8	0.06															54.5
	\$24 to \$32	9	1.27											56.4	0.05															45.5
	\$32 & over	13	1.16											52.4	0.03															27.3
	Total (Average)	92	2.01											89.3	0.10															90.9
	Under \$12	4	3.36											149.98	0.32															290.9*
\$120 & over	\$12 to \$16	16	1.91											84.9	0.14															127.3
	\$16 to \$24	50	1.94											86.2	0.10															90.9
	\$24 to \$32	14	1.07											87.6	0.07															63.6
	\$32 & over	9	2.13											94.7	0.06															54.5
	Total (Average)	43	2.81											124.9	0.12															109.1
\$180 & over	Under \$12	1	2.81											124.9	0.27															245.6*
	\$12 to \$16	3	1.52											67.6	0.11															100.0
	\$16 to \$24	15	2.81											124.9	0.15															136.4
	\$24 to \$32	14	2.66											118.2	0.10															90.9
	\$32 & over	10	3.49											155.1*	0.08															72.7

Average \$2.25

Average \$0.11

* Full length not shown

1919. Because of the fact that 1919, in many respects, was an exceptional year, it has been thought of interest to classify a somewhat smaller group of identical stores by size and by the

amounts sold per full-time sales-person for the combined and the individual years 1919, 1918, and 1914. This is done in Tables 255 to 258, inclusive.

TABLE 254

TOTAL ADVERTISING, TOTAL NET SALES, AND AMOUNT OF TOTAL NET SALES PER \$100
OF ADVERTISING, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Total Advertising	Total Net Sales	Total Net Sales per \$100 of Advertising														
					Amount	Per Cent.													Actual
						Graphic													
						0	20	40	60	80	100	120	140	160	180	200	220	240	
Total (Average)	Total (Average)	269	\$759,571	\$33,667,842	\$4,435														100.0
	Under \$12	30	39,336	1,875,394	4,768														107.5
	\$12 to \$16	56	83,336	4,923,136	5,908														133.2
	\$16 to \$24	103	296,746	13,737,725	4,596														103.7
	\$24 to \$32	44	181,373	7,722,827	4,258														96.0
	\$32 & over	36	156,760	6,428,760	3,463														78.1
Under \$40	Total (Average)	31	10,847	963,213	8,880														200.2
	Under \$12	9	3,288	249,200	7,579														170.9
	\$12 to \$16	4	1,167	127,962	10,965														247.2
	\$16 to \$24	7	1,892	230,157	12,165														274.3*
	\$24 to \$32	7	1,597	212,163	13,285														299.6*
	\$32 & over	4	2,903	143,731	4,951														111.6
\$40 to \$80	Total (Average)	103	80,547	5,872,443	7,291														164.4
	Under \$12	16	12,118	850,428	7,018														158.2
	\$12 to \$16	34	32,641	1,961,396	5,972														134.7
	\$16 to \$24	31	20,133	1,800,655	8,944														201.7
	\$24 to \$32	9	7,562	593,340	7,846														176.9
	\$32 & over	13	7,893	668,624	8,448														190.4
\$80 to \$120	Total (Average)	92	217,979	10,840,797	4,873														112.1
	Under \$12	4	13,130	391,470	9,981														67.2
	\$12 to \$16	18	30,626	1,604,873	6,238														118.1
	\$16 to \$24	60	116,363	6,997,547	5,154														116.2
	\$24 to \$32	14	33,948	1,722,331	6,073														114.4
	\$32 & over	9	23,912	1,126,176	4,708														106.1
\$120 & over	Total (Average)	43	450,196	16,011,389	3,557														80.2
	Under \$12	1	10,800	384,225	3,558														80.2
	\$12 to \$16	3	18,702	1,229,606	6,874														148.2
	\$16 to \$24	15	160,368	6,709,366	3,580														80.3
	\$24 to \$32	14	138,866	6,194,993	3,797														84.7
	\$32 & over	10	122,072	3,493,229	2,862														64.5

Average \$4,435

* Full length not shown

In Table 255 the records of the 146 stores for the three years are combined. The average expenditure for advertising per \$100 of total net sales for these stores is \$2.28. The smallest expenditure—\$1.67—is for stores with sales of \$40,000 to \$80,000. From this amount as a minimum there is an increase to \$2.73 for stores with sales of \$180,000 and over. That is, generally speaking, the amounts expended for advertising per \$100 of total net sales increase with the size of stores. Table 255 shows also the amounts expended for advertising per \$100 of total net sales for the stores further classified by the amounts sold per full-time sales-person. By consulting the table it will be observed that, for stores of a given size-group, the advertising expenditures per \$100 of total net sales, on the whole, tend generally to decrease as the sales per full-time sales-person increase. To this general rule the group with sales under \$40,000 constitutes a notable exception.

When the expenditures for advertising are expressed per \$100 of total net sales for each \$1,000 sold per full-time sales-person, as in the right-hand columns of the table, the average amount for the entire group is \$0.14. The largest amount applies to stores which had sales under \$40,000 per year. For the remaining groups of stores, the expenditures are approximately equal. Within each group of stores, however, the amounts decrease as the sales per full-time sales-person increase. For the entire group, irrespective of size, the advertising

expenditure expressed in this form was \$0.25 for those stores in which the sales per full-time sales-person were less than \$12,000, and \$0.06 for those in which the sales per full-time sales-person were \$32,000 and over. Similar decreases hold for each of the different groups. By expressing the amounts in this form, both advertising expenditures and sales are reduced to a unit basis and are directly comparable.

In Tables 256 to 258, advertising expenditures are shown per \$100 of total net sales and per \$100 of total net sales for each \$1,000 sold per full-time sales-person for the 146 stores for the years 1919, 1918, and 1914, respectively. It is unnecessary to review in detail the contents of these tables. It will suffice to point out that, while the actual amounts differ from store-group to store-group and from year to year, the direction of change in the amounts was substantially the same in each of the years as in the combined years.

The amounts of advertising expenditure for the two groups of stores considered immediately above may also be expressed in terms of selling expense. This is done for the 269 stores in Tables 259 and 260, the units of measurement in Table 259 being per \$100 of selling expense and per \$100 of selling expense per stock turnover, and in Table 260, being per \$100 of selling expense and per \$100 of selling expense for each \$1,000 sold per full-time sales-person.

In 1919 for 269 stores, the expenditures for advertising for each \$100

TABLE 255

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER
FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED BY
SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-
PERSON, 1919, 1918 AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Store- years	Advertising per \$100 of Total Net Sales										Advertising per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140		0	20	40	60	80	100	120	140	160	180				
Total (Average)	Total (Average)	458	\$2.28											100.0	\$0.14											100.0
	Under \$12	151	2.32											101.8	0.25											178.6
	\$12 to \$16	107	2.12											93.0	0.15											107.1
	\$16 to \$24	118	2.27											99.6	0.12											85.7
	\$24 to \$32	39	2.51											110.1	0.09											64.3
	\$32 & over	23	2.24											98.2	0.08											42.9
Under \$40	Total (Average)	125	1.70											74.6	0.16											114.3
	Under \$12	71	1.88											82.5	0.24											171.4
	\$12 to \$16	23	1.34											58.8	0.10											71.4
	\$16 to \$24	17	1.24											54.4	0.07											50.0
	\$24 to \$32	10	1.78											78.1	0.06											42.9
	\$32 & over	4	2.22											97.4	0.06											42.9
\$40 to \$80	Total (Average)	163	1.67											73.2	0.12											85.7
	Under \$12	63	1.92											84.2	0.19											135.7
	\$12 to \$16	48	1.71											75.0	0.12											85.7
	\$16 to \$24	38	1.42											62.3	0.08											57.1
	\$24 to \$32	7	1.51											66.2	0.06											42.9
	\$32 & over	7	0.81											35.5	0.02											14.3
\$80 to \$180	Total (Average)	108	2.28											100.0	0.14											100.0
	Under \$12	14	3.11											136.4	0.31											221.4*
	\$12 to \$16	31	2.16											94.7	0.16											114.3
	\$16 to \$24	46	2.21											96.9	0.12											85.7
	\$24 to \$32	12	2.02											98.6	0.08											57.1
	\$32 & over	5	2.06											90.4	0.06											42.9
\$180 & over	Total (Average)	42	2.73											119.7	0.13											92.9
	Under \$12	3	3.72											163.2*	0.36											257.1*
	\$12 to \$16	6	2.86											125.4	0.21											150.0
	\$16 to \$24	17	2.60											114.0	0.13											92.9
	\$24 to \$32	10	2.84											124.6	0.10											71.4*
	\$32 & over	7	2.51											110.1	0.07											50.0

Average \$2.28

Average \$0.14

* Full length not shown.

TABLE 256

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Total Net Sales										Advertising per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.										Amount	For Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	160	Actual		0	20	40	60	80	100	120	140	Actual			
Total (Average)	Total (Average)	146	\$2.20											100.0	\$0.11											100.0
	Under \$12	15	2.27											103.2	0.23											209.1*
	\$12 to \$16	30	1.56											70.9	0.11											100.0
	\$16 to \$24	61	2.05											93.2	0.10											90.9
	\$24 to \$32	21	2.69											122.3	0.10											90.9
	\$32 & over	19	2.31											105.0	0.06											54.5
Under \$40	Total (Average)	14	1.46											66.4	0.09											81.8
	Under \$12	5	1.36											61.8	0.14											127.3
	\$12 to \$16	1	1.24											56.4	0.09											81.8
	\$16 to \$24	4	0.71											32.3	0.04											36.4
	\$24 to \$32	2	0.96											43.6	0.04											36.4
	\$32 & over	2	3.46											157.3	0.10											90.9
\$40 to \$80	Total (Average)	54	1.28											68.2	0.08											72.7
	Under \$12	8	1.33											60.5	0.14											127.3
	\$12 to \$16	18	1.57											71.4	0.11											100.0
	\$16 to \$24	18	1.08											49.1	0.06											54.5
	\$24 to \$32	4	1.40											63.6	0.05											45.5
	\$32 & over	6	0.88											40.0	0.02											18.2
\$80 to \$180	Total (Average)	54	1.97											89.5	0.11											100.0
	Under \$12	2	5.02											238.2*	0.50											454.5*
	\$12 to \$16	11	1.55											70.5	0.11											100.0
	\$16 to \$24	30	1.06											89.1	0.11											100.0
	\$24 to \$32	7	1.81											86.8	0.07											63.6
	\$32 & over	4	2.07											94.1	0.06											54.5
\$180 & over	Total (Average)	24	2.65											120.5	0.11											100.0
	Under \$12	-	-											-	-											-
	\$12 to \$16	-	-											-	-											-
	\$16 to \$24	9	2.43											110.5	0.13											118.2
	\$24 to \$32	8	2.99											135.9	0.11											100.0
	\$32 & over	7	2.51											114.1	0.07											63.6

Average \$2.20

Average \$0.11

* Full length not shown

of selling expense constituted \$22.13. In other words, advertising constituted 22.13 per cent. of selling expense. When the stores are further classified by size, the expenditures

for advertising per \$100 of selling expense range from \$18.28, for the stores with sales of \$40,000 to \$80,000, to \$24.37 for stores with sales of \$180,000 and over. That is, generally

speaking, the amounts increase as the stores increase in size, or, in other words, advertising expenditures for stores of increasing size increase more rapidly than do the total selling expenses. When the advertising expenditures per \$100 of selling expense

are reduced to a per stock turnover basis, the average for the entire group is \$10.06. For those stores with sales under \$40,000 it is \$12.77. From this as a maximum, the amounts decrease to \$9.03 for the stores which had sales during this year of \$180,000

TABLE 257

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1918

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Total Net Sales						Advertising per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person														
			Amount	Per Cent.					Amount	Per Cent.					Actual								
				Graphic						Graphic													
				0	20	40	60	80	100	120	140		0	20	40	60	80	100	120	140	160	180	
Total (Average)	Total (Average)	146	\$2.22						100.0	\$0.14						100.0							
	Under \$12	50	1.97						88.7	0.19						135.7							
	\$12 to \$16	42	2.10						94.5	0.16						114.3							
	\$16 to \$24	37	2.49						112.2	0.13						92.9							
	\$24 to \$32	14	1.90						85.5	0.07						50.0							
Under \$40	\$32 & over	3	1.67						75.2	0.04						28.6							
	Total (Average)	40	1.52						68.5	0.13						92.9							
	Under \$12	21	1.56						70.3	0.18						128.6							
	\$12 to \$16	7	1.38						62.2	0.10						71.4							
	\$16 to \$24	5	1.06						47.7	0.06						42.9							
\$40 to \$80	\$24 to \$32	5	2.39						102.7	0.08						57.1							
	\$32 & over	2	0.69						40.1	0.02						14.3							
	Total (Average)	61	1.63						73.4	0.12						85.7							
	Under \$12	24	1.92						86.5	0.18						128.6							
	\$12 to \$16	20	1.62						73.0	0.12						85.7							
\$80 to \$180	\$16 to \$24	15	1.30						58.6	0.07						50.0							
	\$24 to \$32	2	0.61						27.5	0.02						14.3							
	\$32 & over	-	-						-	-						-							
	Total (Average)	32	2.39						107.7	0.14						100.0							
	Under \$12	5	2.66						119.4	0.24						171.4							
\$180 & over	\$12 to \$16	11	2.23						101.4	0.16						114.3							
	\$16 to \$24	10	2.58						116.2	0.13						92.9							
	\$24 to \$32	3	2.16						97.3	0.08						57.1							
	\$32 & over	1	2.03						91.4	0.06						42.9							
	Total (Average)	13	2.63						118.5	0.15						107.1							
\$180 & over	Under \$12	-	-						-	-						-							
	\$12 to \$16	4	2.51						113.1	0.20						142.9							
	\$16 to \$24	7	2.80						126.1	0.14						100.0							
	\$24 to \$32	2	1.73						77.9	0.06						42.9							
	\$32 & over	-	-						-	-						-							

Average \$2.22

Average \$0.14

TABLE 258

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1914

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Total Net Sales										Advertising per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Graphic											
				0	20	40	60	80	100	120	140	160	Actual		0	20	40	60	80	100	120	140	160	Actual		
Total (Average)	Total (Average)	146	\$2.67											100.0	\$0.23											100.0
	Under \$12	85	2.52											96.1	0.29											121.7
	\$12 to \$16	35	2.62											101.9	0.19											82.6
	\$16 to \$24	20	2.73											106.2	0.15											65.2
	\$24 to \$32	4	2.30											89.5	0.06											34.9
	\$32 & over	1	0.35											15.6	0.01											4.3
Under \$40	Total (Average)	71	1.96											72.4	0.21											91.3
	Under \$12	45	2.10											81.7	0.29											126.1
	\$12 to \$16	15	1.32											51.4	0.10											45.5
	\$16 to \$24	8	1.79											69.3	0.10											45.5
	\$24 to \$32	5	1.43											57.6	0.06											26.1
	\$32 & over	-	-											-	-											-
\$40 to \$80	Total (Average)	48	2.18											84.8	0.19											82.6
	Under \$12	31	2.06											90.2	0.21											91.3
	\$12 to \$16	10	2.11											82.1	0.15											65.2
	\$16 to \$24	5	3.09											120.2	0.18											78.3
	\$24 to \$32	1	3.47											135.0	0.12											52.2
	\$32 & over	1	0.35											15.6	0.01											4.3
\$80 to \$120	Total (Average)	22	2.86											111.3	0.22											95.7
	Under \$12	7	2.96											115.2	0.51											134.9
	\$12 to \$16	9	2.62											109.7	0.21											91.3
	\$16 to \$24	6	2.79											108.6	0.14											60.9
	\$24 to \$32	-	-											-	-											-
	\$32 & over	-	-											-	-											-
\$120 & over	Total (Average)	5	3.52											157.0	0.27											117.4
	Under \$12	3	3.72											144.7	0.56											156.3
	\$12 to \$16	1	3.51											156.6	0.23											100.0
	\$16 to \$24	1	2.93											110.1	0.18											69.6
	\$24 to \$32	-	-											-	-											-
	\$32 & over	-	-											-	-											-

Average \$2.57

Average \$0.23

and over. That is, the amounts, on the whole, decrease as the stores increase in size.

For the entire group of stores, the expenditures for advertising per \$100 of total selling expense increase as the sales per full-time sales-person increase. For the stores classified

by size, the direction of the change is uncertain. Moreover, when the amounts are expressed per \$100 of selling expense per stock turnover, they seem neither to increase nor decrease regularly with the amount sold per full-time sales-person.

In Table 260 the stores are classi-

fied by size and by the amounts sold per full-time sales-person. Advertising expenditures are shown as proportionate parts of selling expense, reduced to a unit basis—\$1,000 of sales per full-time sales-person. Stated in this form, the average amount for

the 269 stores is \$1.09. For those with sales under \$40,000, it is \$1.13, and from this as a maximum, the amounts decrease to \$1.04 for the 92 stores with sales of \$80,000 to \$180,000. Within each group of stores, the average expenditures for adver-

TABLE 259

AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE PER STOCK TURNOVER, FOR STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Selling Expense												Advertising per \$100 of Selling Expense per Stock Turnover															
			Amount	Per Cent.												Amount	Per Cent.												Actual	
				Graphic													Graphic													
				0	20	40	60	80	100	120	140	160	180	0	20		40	60	80	100	120	140	160	180						
Total (Average)	Total (Average)	269	\$22.13													100.0	\$10.06													100.0
	Under \$12	30	21.37													97.5	12.69													126.1
	\$12 to \$16	56	17.43													78.8	8.30													82.6
	\$16 to \$24	103	19.97													90.2	9.99													99.3
	\$24 to \$32	44	24.50													110.7	10.21													101.5
	\$32 & over	36	29.23													132.1	10.44													103.8
Under \$40	Total (Average)	31	19.15													86.5	12.77													126.9
	Under \$2	9	18.16													82.1	12.97													128.9
	\$2 to \$16	4	16.32													73.7	9.07													90.2
	\$16 to \$24	7	12.79													57.8	9.84													97.8
	\$24 to \$32	7	17.80													80.4	10.47													104.1
	\$32 & over	4	38.05													171.9	23.78													236.4*
\$40 to \$80	Total (Average)	103	18.28													82.6	10.16													101.0
	Under \$12	16	15.76													71.2	10.51													104.3
	\$12 to \$16	34	19.43													87.8	11.43													113.6
	\$16 to \$24	31	17.00													76.8	9.44													93.8
	\$24 to \$32	9	17.75													80.2	8.45													84.0
	\$32 & over	13	23.41													103.8	12.32													122.5
\$80 to \$120	Total (Average)	92	20.03													90.5	10.54													104.8
	Under \$12	4	30.88													139.5	16.25													161.6
	\$12 to \$16	15	16.91													76.4	8.46													84.1
	\$16 to \$24	50	20.46													92.5	11.37													113.0
	\$24 to \$32	14	21.99													97.4	10.47													104.1
	\$32 & over	9	16.93													76.5	6.05													60.1
\$120 & over	Total (Average)	43	24.37													110.1	9.05													89.8
	Under \$12	1	24.06													108.7	9.62													95.6
	\$12 to \$16	3	15.48													70.0	5.34													53.1
	\$16 to \$24	13	20.20													91.3	7.77													77.2
	\$24 to \$32	14	25.83													116.9	9.96													98.9
	\$32 & over	10	34.51													155.9	10.78													107.2

Average \$22.13

Average \$10.06

*Full length not shown

AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER
FULL-TIME SALES-PERSON, FOR STORES CLASSIFIED BY SIZE AND BY
AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

*Full length not shown

In Tables 261 to 264, inclusive, the advertising expenditures per \$100 of selling expense for 146 stores for the

combined and individual years 1919, 1918, and 1914, are set out in detail. The basis for classification is the same as that used in Tables 255 to 258, inclusive, but the amounts are differently expressed.

For the combined years, as shown in Table 261, the average expenditure for advertising per \$100 of selling expense is \$21.18. For those stores which had sales of \$40,000 to \$80,000 it is \$18.19, and for those which had

TABLE 261

AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 IDENTICAL STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores- years	Advertising per \$100 of Selling Expense						Advertising per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person															
			Amount	Per Cent.					Amount	Per Cent.					Actual									
				Graphic						Graphic														
				0	20	40	60	80	100	120	140		0	20	40	60	80	100	120	140	160	180	200	
Total (Average)	Total (Average)	438	\$21.18						100.0	\$1.31						100.0								
	Under \$12	151	20.76						98.0	2.21						168.7								
	\$12 to \$15	107	19.35						91.4	1.41						107.6								
	\$15 to \$24	118	20.22						95.5	1.06						80.9								
	\$24 to \$32	39	24.96						117.9	0.91						69.5								
	\$32 & over	23	26.88						126.9	0.72						55.0								
Under \$40	Total (Average)	128	19.80						93.5	1.90						145.0								
	Under \$12	71	18.49						87.5	2.38						181.7								
	\$12 to \$15	23	19.43						91.7	1.42						108.4								
	\$15 to \$24	17	17.64						83.3	0.93						71.0								
	\$24 to \$32	10	29.77						135.8	1.05						80.2								
	\$32 & over	4	44.20						209.0*	1.12						90.9								
\$40 to \$80	Total (Average)	165	18.19						85.9	1.56						103.8								
	Under \$12	63	17.76						85.9	1.78						135.9								
	\$12 to \$15	48	18.07						85.3	1.31						100.0								
	\$15 to \$24	38	18.65						88.1	1.02						77.9								
	\$24 to \$32	7	21.09						99.5	0.77						58.9								
	\$32 & over	7	20.06						94.7	0.47						35.9								
\$80 to \$160	Total (Average)	108	21.25						100.3	1.28						97.7								
	Under \$12	14	26.76						126.3	2.64						201.5								
	\$12 to \$15	31	19.41						91.5	1.40						105.9								
	\$15 to \$24	46	21.49						101.5	1.15						86.3								
	\$24 to \$32	12	19.62						92.5	0.73						53.7								
	\$32 & over	3	18.13						85.5	0.50						38.2								
\$160 & over	Total (Average)	42	22.55						106.5	1.11						84.7								
	Under \$12	3	25.80						119.0	2.41						184.0								
	\$12 to \$15	5	20.41						96.4	1.52						116.9								
	\$15 to \$24	7	19.82						93.5	1.01						77.1								
	\$24 to \$32	10	25.97						126.9	0.97						74.0								
	\$32 & over	7	29.75						140.5	0.81						61.8								

Average \$21.18

Average \$1.31

* Full length not shown

TABLE 262

AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER
FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND
BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Classified Total Net Sales (in '000's)	Amount of Sales per Full-time Sales-person (in '000's)	Number of Stores	Advertising per \$100 of Selling Expense							Advertising per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person								
			Amount	Per Cent.						Amount	Per Cent.						Actual	
				Graphic							Graphic							
				0	20	40	60	80	100		120	140	0	20	40	60		80
Total (Average)	Total (Average)	146	\$21.15							100.0	\$1.03							100.0
	Under \$12	15	24.61							116.4	2.53							245.6*
	\$12 to \$16	30	15.36							77.6	1.10							106.8
	\$16 to \$24	51	18.11							85.6	0.96							95.2
	\$24 to \$32	21	26.91							127.8	0.96							95.1
	\$32 & over	19	26.82							126.9	0.72							69.9
Under \$40	Total (Average)	14	21.59							107.0	1.37							155.0
	Under \$12	5	19.39							91.6	1.97							191.3
	\$12 to \$16	1	15.39							72.4	1.14							110.7
	\$16 to \$24	4	16.05							47.5	0.51							49.5
	\$24 to \$32	8	20.39							96.1	0.78							75.9
	\$32 & over	2	48.59							229.7*	1.40							135.9
\$40 to \$80	Total (Average)	54	17.15							81.1	1.05							191.9
	Under \$12	8	15.12							62.0	1.97							155.0
	\$12 to \$16	18	18.09							86.8	1.28							124.5
	\$16 to \$24	18	19.24							78.9	0.97							84.5
	\$24 to \$32	4	23.08							108.8	0.86							85.5
	\$32 & over	6	20.89							90.7	0.48							46.6
\$80 to \$150	Total (Average)	54	19.56							91.5	1.06							102.9
	Under \$12	2	56.10							266.3*	5.61							544.7*
	\$12 to \$16	11	15.60							84.3	0.96							95.1
	\$16 to \$24	30	19.70							93.1	1.06							102.9
	\$24 to \$32	7	23.65							107.1	0.88							86.5
	\$32 & over	4	16.10							76.1	0.44							42.7
\$150 & over	Total (Average)	24	22.93							106.4	0.94							91.3
	Under \$12	-	-							-	-							-
	\$12 to \$16	-	-							-	-							-
	\$16 to \$24	9	17.45							82.5	0.92							89.3
	\$24 to \$32	8	27.86							151.8	1.00							97.1
	\$32 & over	7	29.75							140.7	0.81							78.6

Average \$21.15

Average \$1.03

Average \$21.15

Average \$1.05

*Full length not shown

sales of \$180,000 and over it is \$22.55. Over the entire range of sizes, the amounts increase as the stores increase in size. When the stores are further classified by the amounts sold per full-time sales-person, the expenditures for advertising for the entire

group, irrespective of size, increase as the amounts sold per full-time sales-person increase. For stores of a given size-group, however, this tendency is not so evident. For the small stores—those with sales of less than \$80,000—the amounts seem gen-

erally to increase as the sales per full-time sales-person increase. For the other two groups, the direction of change is uncertain.

When the expenditures for advertising are shown per \$100 of selling expense for each \$1,000 sold per full-

time sales-person, the average for the entire group is \$1.31. The largest amount—\$1.90—applies to the stores with smallest sales, and the smallest amount—\$1.11—to those having largest sales. That is, over the entire range of sizes, the expenditures ex-

TABLE 263

AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1918

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Selling Expense						Advertising per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person									
			Amount	Per Cent.					Actual	Amount	Per Cent.					Actual		
				Graphic							Graphic							
				0	20	40	60	80	100		120	140	160	180	0	20	40	60
Total (Average)	Total (Average)	146	\$20.28							100.0	\$1.30							100.0
	Under \$12	50	19.22							94.8	1.89							145.4
	\$12 to \$16	42	13.67							92.1	1.39							106.9
	\$16 to \$24	37	21.91							108.0	1.10							84.6
	\$24 to \$32	14	18.83							92.9	0.69							53.1
	\$32 & over	3	29.90							147.4	0.80							61.5
Under \$40	Total (Average)	40	18.43							90.9	1.56							120.0
	Under \$12	21	15.72							77.5	1.80							130.3
	\$12 to \$16	7	19.30							95.2	1.43							110.0
	\$16 to \$24	5	14.06							69.3	0.75							57.7
	\$24 to \$32	5	35.24							173.8	1.25							96.2
	\$32 & over	2	32.30							152.3	0.81							62.3
\$40 to \$60	Total (Average)	61	17.42							85.9	1.32							101.5
	Under \$12	24	13.34							90.4	1.73							133.1
	\$12 to \$16	20	17.05							84.1	1.26							96.9
	\$16 to \$24	15	16.17							79.7	0.89							68.3
	\$24 to \$32	2	17.59							86.7	0.62							47.7
	\$32 & over	-	-							-	-							-
\$60 to \$180	Total (Average)	32	21.83							107.6	1.28							96.5
	Under \$12	5	26.43							130.3	2.36							181.5*
	\$12 to \$16	11	22.02							108.6	1.56							120.0
	\$16 to \$24	10	22.27							109.8	1.11							85.4
	\$24 to \$32	5	16.95							83.6	0.63							46.5
	\$32 & over	1	29.44							145.2	0.81							62.5
\$180 & over	Total (Average)	13	20.99							103.5	1.17							90.0
	Under \$12	-	-							-	-							-
	\$12 to \$16	4	17.47							86.1	1.36							106.2
	\$16 to \$24	7	22.97							112.6	1.13							66.9
	\$24 to \$32	2	18.67							91.6	0.67							51.5
	\$32 & over	-	-							-	-							-

Average \$20.28

Average \$1.30

*Full length not shown

TABLE 264

AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER
FULL-TIME SALES-PERSON, FOR 146 STORES CLASSIFIED BY SIZE AND
BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1914

Classified Total Net Sales (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Selling Expense										Advertising per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic					Actual						Graphic					Actual						
				0	20	40	60	80	100	120	140			0	20	40	60	80	100	120	140					
Total (Average)	Total (Average)	148	\$22.64											100.0	\$2.00											100.0
	Under \$12	86	20.99											92.7	2.34											117.0
	\$12 to \$16	35	23.38											103.3	1.67											83.5
	\$16 to \$24	20	27.55											123.0	1.49											74.5
	\$24 to \$32	4	20.17											89.1	0.73											36.5
	\$32 & over	1	12.46											55.0	0.33											16.5
Under \$40	Total (Average)	71	20.29											89.8	2.26											113.0
	Under \$12	45	19.73											87.1	2.74											137.0
	\$12 to \$16	15	19.61											87.5	1.43											71.5
	\$16 to \$24	8	26.94											119.0	1.45											72.5
	\$24 to \$32	3	21.99											97.1	0.82											41.0
	\$32 & over	-	-											-	-											-
\$40 to \$80	Total (Average)	43	19.90											87.9	1.77											89.5
	Under \$12	31	19.32											80.9	1.90											95.0
	\$12 to \$16	10	19.99											88.5	1.46											73.0
	\$16 to \$24	5	31.06											137.2	1.76											88.0
	\$24 to \$32	1	19.20											84.8	0.67											33.5
	\$32 & over	1	12.46											55.0	0.33											16.5
\$80 to \$120	Total (Average)	22	24.60											106.7	1.91											95.5
	Under \$12	7	22.74											100.4	2.35											117.5
	\$12 to \$16	9	25.87											104.1	1.73											86.5
	\$16 to \$24	6	29.11											128.6	1.51											75.5
	\$24 to \$32	-	-											-	-											-
	\$32 & over	-	-											-	-											-
\$120 & over	Total (Average)	3	25.25											111.5	1.96											98.0
	Under \$12	3	26.20											111.5	2.41											120.6
	\$12 to \$16	1	26.30											116.2	1.76											87.5
	\$16 to \$24	1	21.54											95.1	1.20											60.0
	\$24 to \$32	-	-											-	-											-
	\$32 & over	-	-											-	-											-

Average \$22.64

Average \$2.00

pressed in this form decrease. Within each group of stores, moreover, when they are further classified by the amounts sold per full-time sales-

person, the advertising expenditures decrease. For the entire group in which the sales per full-time sales-person are less than \$12,000, the ex-

penditure for advertising, expressed in this form, is \$2.21, while for those in which the amount sold per full-time sales-person is \$32,000 and over, the amount is \$0.72. Similar decreases hold for each of the groups.* The basis of classification normally requires this.

In Tables 262 to 264, the expenditures for advertising, for stores classified as in Table 261, are shown for the years 1919, 1918, and 1914, respectively. The amounts for the different groups of stores from year to year, as well as the tendencies which they may have to increase or to decrease when differently classified, are fully set out in the tables, and it is unnecessary to review them in detail at this point.

In considering these tables, the reader should remember that care has been taken to eliminate, so far as possible, all elements of error in the data and to classify the stores in the detail necessary to make comparisons of significance. To have printed the frequencies with which the different items occur, or even the highs and lows in the detail provided for in the tables, would have unduly complicated the tabulations and probably been of little value in the interpretation of the norms or standards shown. One of the many reasons for showing the expenditures in the form of complex units has been to obviate the necessity for elaborating the tabulations.

* There is a slight exception to this rule for the stores having annual sales less than \$40,000.

C.—Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size and by Size of City in Which Located, 1919, 1918, and 1914.*

Analysis has shown that the size of the city in which stores are located helps to determine the amounts of expenditure for store operations. In order to take note of this factor in the discussion of advertising expenditures, a group of 103 stores with annual sales of \$40,000 to \$80,000 in 1919 has been classified in Tables 265 to 268, inclusive, by location and further by the amounts of sales per full-time sales-person.

Table 265 shows that the average expenditure for advertising per \$100 of total net sales for the 89 stores located in cities with population under 40,000 was \$1.32. It also shows that the corresponding amount for the 14 stores located in cities with population of 40,000 and over was \$1.64. When the amounts expended for advertising are expressed per \$100 of total net sales per stock turnover, they constitute, on the average, \$0.78 for the stores in the two city-groups. When they are expressed in terms of \$100 of sales for each \$1,000 sold per full-time sales-person, as in Table 266, the average amount for the stores in the large cities is \$0.09, and for those in the small, \$0.08.

For the stores in each of the city-groups, when further classified by the

* Population figures are for 1920.

TABLE 265

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER STOCK TURNOVER, FOR STORES WITH SALES OF \$40,000 TO \$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Size of City (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Total Net Sales												Advertising per \$100 of Total Net Sales per Stock Turnover													
			Amount	Per Cent.											Amount	Per Cent.												
				Graphic												Graphic												
				0	20	40	60	80	100	120	140	160		0	20	40	60	80	100	120	140							
Total (Average)	Total (Average)	103	\$1.37												100.0	\$0.76												100.0
	Under \$12	16	1.42												107.6	0.95												125.0
	\$12 to \$16	34	1.67												121.9	0.98												126.9
	\$16 to \$24	31	1.12												81.6	0.62												81.6
	\$24 to \$32	9	1.27												82.7	0.60												78.9
	\$32 & over	13	1.18												86.1	0.62												81.6
Under 40	Total (Average)	89	1.32												96.3	0.78												102.6
	Under \$12	14	1.45												105.8	0.97												127.5
	\$12 to \$16	29	1.70												124.1	1.00												131.6
	\$16 to \$24	29	1.01												73.7	0.59												77.6
	\$24 to \$32	6	1.00												75.0	0.66												73.7
	\$32 & over	11	1.23												89.8	0.62												81.6
40 and over	Total (Average)	14	1.64												119.7	0.78												102.6
	Under \$12	2	1.26												92.0	0.79												113.9
	\$12 to \$16	5	1.56												111.9	0.78												102.6
	\$16 to \$24	2	2.36												175.7	0.72												94.7
	\$24 to \$32	3	1.77												129.2	0.71												93.4
	\$32 & over	2	0.89												65.0	0.66												73.7
Average \$1.37																												
Average \$0.76																												

amounts sold per full-time sales-person, there is no unmistakable tendency for advertising expenditures to increase or to decrease as the sales per full-time sales-person increase. This generalization applies to the amounts expressed in terms of sales and in terms of sales per stock turnover. When they are expressed in terms of sales for the amount sold per full-time sales-person, however, they decrease for the stores in the two city-groups, as shown in the right-hand column of Table 266. The actual amounts of expenditure, as shown in Tables 265 and 266, consti-

tute the standards or norms which are discovered for this group of stores for a single year.

In Tables 267 and 268, the amounts of advertising expenditure are shown for a group of 103 stores classified by location and sales per full-time sales-person. The method of expressing them is, first, in terms of selling expense alone; second, in terms of selling expense per stock turnover; and, third, in terms of selling expense per \$1,000 sold for a full-time sales-person. As shown in Table 267, advertising constitutes \$18.05 out of every \$100 of selling expense for the

stores located in the small cities. For those located in the large cities, the corresponding amount is \$19.42. When these expenses are reduced to a per stock turnover basis, the average amount for the stores in the small is \$10.62 and for those in the large cities, \$9.25. That is, in terms of selling expense alone, the average amount is higher in the large cities, and in terms of selling expense per stock turnover, lower in the large than in the small cities. A more satisfactory basis for comparing these

amounts would be to select stores with the same sales per full-time sales-person, but with different location. The data, however, for stores in the large cities are insufficient to admit of such a comparison.

When the advertising expenditures are shown per \$100 of selling expense per \$1,000 sold per full-time sales-person, as in Table 268, the average amount for the stores in the small cities is the same as that for those in the large cities. For stores of different location, but with the same

TABLE 266

AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES PER \$1,000 OF SALES PER FULL-TIME SALES-PERSON, FOR STORES WITH SALES OF \$40,000 TO \$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Size of City (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Total Net Sales					Advertising per \$100 of Total Net Sales per \$1,000 of Sales per Full-time Sales-person									
			Amount	Per Cent.				Amount	Per Cent.								
				Graphic					Graphic								
				0	20	40	60	80	100	120	140	0	20	40	60	80	100
Total (Average)	Total (Average)	103	1.27					100.0	0.08					100.0			
	Under \$12	16	1.42					103.6	0.14					175.0			
	\$12 to \$16	34	1.67					121.9	0.12					150.0			
	\$16 to \$24	31	1.12					81.8	0.06					75.0			
	\$24 to \$32	9	1.27					92.7	0.05					62.5			
	\$32 & over	13	1.16					86.1	0.03					37.5			
Under 40	Total (Average)	89	1.52					96.3	0.08					100.0			
	Under \$12	14	1.45					105.8	0.14					175.0			
	\$12 to \$16	29	1.70					124.1	0.12					150.0			
	\$16 to \$24	29	1.01					75.7	0.05					62.5			
	\$24 to \$32	6	1.00					73.0	0.04					50.0			
	\$32 & over	11	1.23					89.8	0.03					37.5			
40 and over	Total (Average)	14	1.64					119.7	0.09					142.5			
	Under \$12	2	1.56					92.0	0.13					162.5			
	\$12 to \$16	5	1.56					113.9	0.11					137.5			
	\$16 to \$24	2	2.59					173.7*	0.11					137.5			
	\$24 to \$32	3	1.77					129.2	0.07					87.5			
	\$32 & over	2	0.89					65.0	0.02					25.0			

Average \$1.37

Average \$0.08

*Full length not shown

TABLE 267

AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE PER STOCK TURNOVER, FOR STORES WITH SALES OF \$10,000 TO \$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF SALES PER FULL-TIME SALES-PERSON, 1919

Size of City (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Selling Expense													Advertising per \$100 of Selling Expense per Stock Turnover														
			Amount	Per Cent.												Amount	Per Cent.												Actual	
				Graphic													Graphic													
				0	20	40	60	80	100	120	140	160	180	0	20		40	60	80	100	120	140								
Total (Average)	Total (Average)	103	\$18.28													100.0	\$10.16													100.0
	Under \$12	16	15.76													86.2	10.51													103.4
	\$12 to \$16	34	19.43													106.5	11.43													112.5
	\$16 to \$24	31	17.00													93.0	9.44													92.9
	\$24 to \$32	9	17.75													97.1	8.45													85.2
	\$32 & over	13	23.41													123.1	12.32													121.5
Under 40	Total (Average)	89	18.05													96.7	10.62													104.5
	Under \$12	14	15.37													84.1	10.25													100.9
	\$12 to \$16	29	20.01													109.5	11.77													115.8
	\$16 to \$24	29	15.44													84.5	9.08													89.4
	\$24 to \$32	6	15.48													84.7	8.60													84.6
	\$32 & over	11	25.24													156.1	12.62													124.2
40 and over	Total (Average)	14	19.42													106.2	9.25													91.0
	Under \$12	2	20.16													110.5	12.60													124.0
	\$12 to \$16	5	16.66													91.1	8.35													82.0
	\$16 to \$24	2	32.72													179.0	9.92													97.6
	\$24 to \$32	3	17.68													96.7	7.07													69.6
	\$32 & over	2	14.30													78.2	8.94													88.0
			Average \$18.28													Average \$10.16														

Average \$18.28

Average \$10.16

amounts sold per full-time sales-person, the average expenditures are different. In most cases the number of stores is inadequate to serve as a basis for comparison. For stores within both city-groups, however, the advertising expenditures, measured in this form, decrease as the sales per full-time sales-person increase.

D.—Summary.

- (1). The amounts of advertising expenditure per \$100 of total net sales per \$1,000 of sales for a full-time sales-person decreased between 1914 and 1918, and 1918 and 1919.

This holds for all stores and for stores of a given size.

- (2). The amounts of advertising per \$100 of selling expense per \$1,000 sold for a full-time sales-person decreased between 1914 and 1918, and 1918 and 1919, for all stores and for stores of a given size.
- (3). For stores of a given size, the expenditures for advertising, measured in terms of sales alone, tend to increase as the sales per full-time sales-person increase. When measured in terms of sales per stock

TABLE 268

AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE PER \$1,000 OF SALES PER
FULL-TIME SALES-PERSON, FOR STORES WITH SALES OF \$40,000 TO
\$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT
OF SALES PER FULL-TIME SALES-PERSON, 1919

Size of City (in 000's)	Amount of Sales per Full-time Sales-person (in 000's)	Number of Stores	Advertising per \$100 of Selling Expense										Advertising per \$100 of Selling Expense per \$1,000 of Sales per Full-time Sales-person																																
			Amount	Per Cent.										Amount	Per Cent.																														
				0	20	40	60	80	100	120	140	160	180		0	20	40	60	80	100	120	140	160	180																					
Total (Average)	Total (Average)	103	\$18.28											100.0	\$1.10											100.0																			
	Under \$12	16	15.76											86.2	1.57											142.7																			
	\$12 to \$16	34	19.43											105.3	1.34											121.8																			
	\$16 to \$24	31	17.00											93.0	0.90											81.8																			
	\$24 to \$32	9	17.75											97.1	0.66											60.0																			
	\$32 & over	13	23.41											128.1	0.55											60.0																			
Under 40	Total (Average)	89	16.05											98.7	1.10											100.0																			
	Under \$12	14	15.37											84.1	1.68											136.2																			
	\$12 to \$16	29	20.01											109.5	1.39											126.4																			
	\$16 to \$24	29	15.44											84.6	0.82											74.5																			
	\$24 to \$32	6	15.46											84.7	0.57											51.6																			
	\$32 & over	11	25.24											136.1	0.60											34.5																			
\$40 and over	Total (Average)	14	19.42											106.2	1.10											100.0																			
	Under \$12	2	20.16											110.3	2.12											192.7*																			
	\$12 to \$16	5	16.66											91.1	1.13											102.7																			
	\$16 to \$24	2	32.72											179.0	1.56											141.8																			
	\$24 to \$32	3	17.68											96.7	0.67											60.9																			
	\$32 & over	2	14.30											78.2	0.32											29.1																			
Average \$18.28																							Average \$1.10																						

Average \$18.28

Average \$1.10

*Full length not shown

turnover, and in terms of sales for the amount sold per full-time sales-person, they decrease as the sales per full-time sales-person increase.

- (4). The proportions of selling expense attributable to advertising increase as the amounts sold per full-time sales-person increase for all stores and for stores with sales under \$80,000. The direction of change is not uniform for stores with sales of \$80,000 and over.

- (5). The amounts of advertising expenditures, expressed in terms of selling expense and stock turnover, are irregular for stores with different amounts sold per full-time sales-person. In terms of selling expense and the amount sold per full-time sales-person, however, they decrease as the sales per full-time sales-person increase.

- (6). For stores of a given size, the average amount of advertising

ing expenditures per \$100 of total net sales for a \$1,000 sold for a full-time sales-person is higher in the large than in the small cities.

- (7). For stores of a given size, the average amount of advertising expenditure per \$100 of selling expense for a \$1,000 sold per full-time sales-person is the same in both small and large cities.

4.—YEARLY AMOUNTS OF EXPENDITURE
FOR ADVERTISING IN RELATION TO
EXPENDITURES FOR RENT AND IN-
VESTMENTS IN FIXTURES, FOR
STORES CLASSIFIED BY YEARS, BY
SIZE, AND BY LOCATION.

The discussion of the amounts expended for advertising, considered in this section, is based upon stores classified according to the amount of rent paid per 100 square feet of floor space and to the amounts invested in fixtures per \$100 of total net sales. In outline, it follows closely a similar discussion of the amounts of wages and salaries paid, although in some respects it is less inclusive.

(1)—YEARLY AMOUNTS OF EXPENDI-
TURE FOR ADVERTISING IN RELA-
TION TO EXPENDITURES FOR RENT
PER 100 SQUARE FEET OF FLOOR
SPACE, FOR STORES CLASSIFIED BY
SIZE OF CITY IN WHICH LOCATED.*

For the purpose of analyzing the expenditures for advertising per \$100 of total net sales and per \$100 of

selling expense for stores paying different amounts of rent per 100 square feet of floor space, a group of stores having annual sales between \$40,000 and \$80,000 in 1919 is selected. The stores are classified in Table 269 by the size of the city in which located and, further, by their rent expenditures, measured in units of floor space. A brief consideration of this table is of interest.

For the 87 stores located in the small cities, as shown in Table 269, the average expenditure for advertising per \$100 of total net sales is \$1.34; per \$100 of total net sales per stock turnover it is \$0.79; per \$100 of total net sales per \$1,000 sold per full-time sales-person, \$0.08; and per \$100 of total net sales for the amount sold per square foot of floor space, \$0.08. These are the same units which are used in the discussion of the amounts of wages and salaries paid for stores classified in the same manner. For this group of stores, the advertising expenditures per \$100 of total net sales increase as the amounts paid in rent per 100 square feet of floor space increase, the minimum amount being \$0.88 and the maximum \$1.67. When the expenditures are measured in terms of net sales per stock turnover, they likewise increase with the increase in rent paid per unit of floor space. A similar condition obtains when the amounts are expressed per \$1,000 sold per full-time sales-person. On the other hand, when they are expressed per \$100 of total net sales for the amount sold per square foot of floor space, they de-

* Population figures are for 1920.

crease with increasing rent payments per 100 square feet of floor space. This follows because of the diminished floor space which is used under conditions of high rental.*

The amounts of advertising expenditure per \$100 of selling expense are also shown in Table 269, the same units which were used when relating them to sales being employed. The table shows the amounts for stores having different rent expenditures per 100 square feet of floor space, and it is unnecessary to review them in detail. The general directions of change agree with those found when the amounts are expressed in terms of sales.

One feature of Table 269, however, requires brief consideration. The

* See Table 75 and the accompanying discussion.

lower part of the table shows the average amounts of expenditure for advertising in terms of sales and of selling expense, for 10 stores having sales of \$40,000 to \$80,000, but located in cities with population of 40,000 and over. By consulting the table, comparisons may be made of advertising expenditures for stores with similar rentals and sales, but with different location. Without reviewing them in detail, it is of interest to observe that the average amounts per \$100 of total net sales and per \$100 of selling expense are greater for the stores in the large, than for those in the small cities. This table should be studied in conjunction with the corresponding tables which relate to the amounts spent for wages and salaries and total selling expense for stores similarly classified.

TABLE 269

RELATION OF ADVERTISING TO TOTAL NET SALES AND SELLING EXPENSE, FOR STORES HAVING SALES BETWEEN \$40,000 AND \$80,000, CLASSIFIED BY SIZE OF CITY AND BY AMOUNT OF RENT PER 100 SQUARE FEET OF FLOOR SPACE, 1919

Size of City (in 000's)	Amount of Rent per 100 sq. ft. of Floor Space	Number of Stores	Advertising per \$100 of Total Net Sales				Advertising per \$100 of Selling Expense			
			Sales Alone	Per Stock Turnover	Per \$1,000 of Sales per Full-time Sales-person	Per Sales per sq. ft. of Floor Space	Selling Expense Alone	Per Stock Turnover	Per \$1,000 of Sales per Full-time Sales-person	Per Sales per sq. ft. of Floor Space
Under 40	Average	87	\$1.34	\$0.79	\$0.08	\$0.08	\$18.13	\$10.66	\$1.10	\$1.04
	Under \$20	13	0.88	0.44	0.05	0.09	13.44	6.72	0.71	1.35
	\$20 to \$40	43	1.26	0.79	0.08	0.07	18.27	11.42	1.09	1.03
	\$40 to \$60	17	1.67	0.93	0.11	0.08	19.91	11.06	1.31	0.90
	\$60 & over	14	1.54	0.96	0.10	0.06	18.68	11.80	1.24	0.70
40 and over	\$60 & over	10	1.87	0.81	0.11	0.06	20.34	8.84	1.16	0.62

A.—Summary.

- (1). For stores of a given size, the amounts of advertising expenditure per \$100 of total net sales increase as the amounts of rent paid per 100 square feet of floor space increase.
- (2). For stores of a given size, the proportions of selling expense attributable to advertising increase as the rental payments per 100 square feet of floor space increase.

(2)—YEARLY AMOUNTS OF EXPENDITURE FOR ADVERTISING IN RELATION TO INVESTMENTS IN FIXTURES PER \$100 OF TOTAL NET SALES.

For the analysis of advertising expenditures per \$100 of total net sales and per \$100 of selling expense for stores classified by the amounts invested in fixtures per \$100 of total net sales, the records of 135 stores are available. The purpose of this analysis is to determine the relation, if any, which exists between the amounts expended for advertising in relation to sales and the amounts of the fixture investments, similarly expressed.

A.—*Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales and per \$100 of Selling Expense, 1917, 1918, and 1914.*





















Table 270 shows the average amounts of expenditure for advertising per \$100 of total net sales for 135 stores, classified by the amounts invested in fixtures per \$100 of total

net sales. Without reviewing the average expenditures for each of the years for the 135 stores, as a whole, attention is directed primarily to the amounts in each year for stores having different fixture investments per \$100 of total net sales. For the combined years, the average advertising expenditure per \$100 of total net sales, for the stores which had fixture investments of less than \$2 per \$100 of sales, is \$1.84. From this average as a minimum, the amounts increase to \$2.71 for the stores which had \$6 or more invested in fixtures for each \$100 of sales. For each year, with two unimportant exceptions, the expenses for this purpose increase, as the amounts invested in fixtures per \$100 of total net sales increase. That is, a direct relationship between advertising expenditures and investment in fixtures is found. This is to be expected in view of the fact that an important service rendered by fixtures is the display of goods. In the nature of the case, such a display involves some expenditure for advertising.

In Table 271 the average fixture investments per \$100 of total net sales are shown for stores classified by years and further by the amounts of advertising expenditure per \$100 of total net sales. The purpose of this table is to show the direct relationship which obtains between fixture investments and the amounts expended for advertising. With a single exception, amounts of fixture account vary directly with the amounts expended for advertising in relation to sales.

TABLE 270

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 135 IDENTICAL STORES CLASSIFIED BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Fixture Account per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
0 20 40 60 80 100 120 140																
Total (Average)	Total (Average)	405	\$40,576,908	\$923,442	\$2.28											100.0
	Under \$2	72	8,020,930	147,345	1.84											80.7
	\$2 to \$4	131	10,428,302	206,442	1.98											86.8
	\$4 to \$6	86	7,841,233	182,392	2.35											102.2
	\$6 & over	116	14,286,443	387,263	2.71											118.9
1919	Total (Average)	135	18,919,233	412,745	2.18											95.6
	Under \$2	38	5,228,703	100,793	1.93											84.6
	\$2 to \$4	51	4,897,266	93,916	1.92											84.2
	\$4 to \$6	23	3,173,841	67,564	2.13											93.4
	\$6 & over	23	5,619,423	150,472	2.68											117.5
1918	Total (Average)	135	13,360,145	293,780	2.20											96.5
	Under \$2	20	2,163,476	33,524	1.55											68.0
	\$2 to \$4	45	3,706,654	75,135	2.03											89.0
	\$4 to \$6	34	2,807,944	64,292	2.29											100.4
	\$6 & over	36	4,682,071	120,829	2.58											113.2
1914	Total (Average)	135	8,297,530	216,917	2.61											114.5
	Under \$2	14	628,751	13,028	2.07											90.8
	\$2 to \$4	35	1,824,382	37,391	2.05											89.9
	\$4 to \$6	29	1,859,448	50,536	2.72											119.3
	\$6 & over	57	3,984,949	115,962	2.91											127.6

Average \$2.28

In Table 272, the amounts of expenditure for advertising are shown as proportionate parts of selling expense. The bases of classification of the stores are years and amounts invested in fixtures in relation to sales. For the combined years, the stores which had less than \$2 invested in

fixtures for each \$100 of sales, spent \$17.69 in advertising for each \$100 of selling expense, while those which had \$6 and over invested in fixtures, similarly measured, expended \$21.38. Over the entire range of stores, when classified by fixture investments, advertising expenditures become a pro-

portionately larger part of selling expense. This holds not only for the combined, but also for the individual years. There are certain exceptions to this rule and these the reader may observe for himself by consulting the table.

It is unnecessary to review for each of the years the amounts of advertising expenditure per \$100 of selling

expense for stores treated without relation to fixture investment. This has been done in various places in the preceding discussion. While the amounts in this case slightly differ from those for other groups of stores, the variations on the whole are of the same general nature and the amounts not widely different.

TABLE 271



















TOTAL NET SALES, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, FOR 135 IDENTICAL STORES CLASSIFIED BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Advertising per \$100 of Total Net Sales	Number of Store-years	Total Net Sales	Amount of Fixture Account	Fixture Account per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
						0	20	40	60	80	100	120	140	160	180	200
Total (Average)	Total (Average)	405	\$40,576,908	\$1,908,079	\$4.70											100.0
	Under \$1	99	6,041,768	217,855	3.61											76.8
	\$1 to \$2	128	9,375,659	354,297	3.78											80.4
	\$2 to \$3	109	14,595,172	674,077	4.62											98.3
	\$3 & over	69	10,564,309	661,850	6.26											133.2
1919	Total (Average)	135	18,919,233	738,774	3.90											83.0
	Under \$1	39	3,049,266	93,171	3.06											65.1
	\$1 to \$2	39	3,903,793	128,510	3.29											70.0
	\$2 to \$3	42	8,280,017	339,711	4.10											87.2
	\$3 & over	15	3,686,157	177,382	4.81											102.3
1918	Total (Average)	135	13,360,145	620,889	4.65											98.9
	Under \$1	36	2,112,506	87,312	4.13											87.9
	\$1 to \$2	44	3,258,720	119,980	3.68											78.3
	\$2 to \$3	35	4,278,153	204,313	4.78											101.7
	\$3 & over	20	3,710,768	209,284	5.64											120.0
1914	Total (Average)	135	9,297,530	548,416	6.61											140.8
	Under \$1	24	879,996	37,372	4.25											90.4
	\$1 to \$2	45	2,213,146	105,807	4.78											101.7
	\$2 to \$3	32	2,037,002	130,053	6.38											135.7
	\$3 & over	34	3,167,386	275,184	8.69											184.9

Average \$4.70

TABLE 272

TOTAL SELLING EXPENSE, TOTAL ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 135 IDENTICAL STORES CLASSIFIED BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Fixture-Account per \$100 of Total Net Sales	Number of Store- years	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense								
					Amount	Per Cent.							Actual
						Graphic							
						0	20	40	60	80	100	120	
Total (Average)	Total (Average)	405	\$4,428,098	\$923,442	\$20.85								100.0
	Under \$2	72	832,922	147,345	17.69								84.8
	\$2 to \$4	131	985,648	206,442	20.94								100.4
	\$4 to \$8	86	798,319	182,392	22.85								109.6
	\$6 & over	116	1,811,209	387,263	21.38								102.5
1919	Total (Average)	135	1,992,310	412,745	20.72								99.4
	Under \$2	38	535,232	100,793	18.85								90.3
	\$2 to \$4	51	428,443	93,916	21.92								105.1
	\$4 to \$6	23	326,474	67,564	20.70								99.3
	\$6 & over	23	702,161	150,472	21.43								102.8
1918	Total (Average)	135	1,473,360	293,780	19.94								95.6
	Under \$2	20	244,748	33,524	13.70								65.7
	\$2 to \$4	45	370,532	75,135	20.28								97.3
	\$4 to \$6	34	267,521	64,292	24.03								115.3
	\$6 & over	36	590,559	120,829	20.46								98.1
1914	Total (Average)	135	962,428	216,917	22.54								108.1
	Under \$2	14	52,942	13,028	24.61								118.0
	\$2 to \$4	35	186,873	37,391	20.03								96.1
	\$4 to \$6	29	204,324	50,536	24.73								118.6
	\$6 & over	57	518,489	115,962	22.37								107.3
Average \$20.85													

B.—Yearly Amounts of Expenditure for Advertising per \$100 of Total Net Sales and per \$100 of Selling Expense, for Stores Classified by Size, 1919, 1918, and 1914.

In Tables 273 to 276, inclusive, the

average amounts of advertising expenditure per \$100 of total net sales are computed for stores classified by years, by size, and by the amounts invested in fixtures per \$100 of total net sales. The amounts may be studied from two points of view: First, from year to year for stores

TABLE 273


























TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 135 IDENTICAL STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales									
					Amount	Per Cent.								Actual
						Graphic								
						0	20	40	60	80	100	120	140	
Total (Average)	Total (Average)	405	\$40,576,908	\$923,442	\$2.28									100.0
	Under \$2	72	8,020,930	147,345	1.84									80.7
	\$2 to \$4	131	10,428,302	206,442	1.98									86.8
	\$4 to \$6	86	7,841,233	182,392	2.33									102.2
	\$6 & over	116	14,286,443	387,263	2.71									118.9
Under \$40	Total (Average)	112	3,119,809	54,347	1.74									76.3
	Under \$2	14	403,857	5,788	1.43									62.7
	\$2 to \$4	28	800,159	12,713	1.59									69.7
	\$4 to \$6	27	723,519	11,735	1.62									71.1
	\$6 & over	43	1,192,274	24,111	2.02									88.6
\$40 to \$80	Total (Average)	153	8,672,180	145,442	1.68									73.7
	Under \$2	20	1,107,291	10,467	0.95									41.7
	\$2 to \$4	63	3,755,597	61,733	1.64									71.9
	\$4 to \$6	31	1,653,451	31,295	1.89									82.9
	\$6 & over	39	2,155,841	41,947	1.95									85.5
\$80 to \$180	Total (Average)	98	11,411,444	253,444	2.22									97.4
	Under \$2	27	3,021,911	36,997	1.89									82.9
	\$2 to \$4	33	3,838,768	77,049	2.01									88.2
	\$4 to \$6	19	2,392,924	61,961	2.59									115.6
	\$6 & over	19	2,157,851	57,437	2.66									116.7
\$180 & over	Total (Average)	42	17,373,476	470,209	2.71									118.9
	Under \$2	11	3,487,871	74,093	2.12									93.0
	\$2 to \$4	7	2,033,788	54,947	2.70									118.4
	\$4 to \$6	9	3,071,339	77,401	2.52									110.5
	\$6 & over	15	8,780,477	253,768	3.00									131.6

Average \$2.28

TABLE 274

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										Actual
						0	20	40	60	80	100	120	140			
Total (Average)	Total (Average)	135	\$18,919,233	\$412,745	\$2.18											100.0
	Under \$2	38	5,228,703	100,793	1.93											88.5
	\$2 to \$4	51	4,897,266	93,916	1.92											88.1
	\$4 to \$6	23	3,173,841	67,564	2.13											97.7
	\$6 & over	23	5,619,423	150,472	2.68											122.9
Under \$40	Total (Average)	12	374,325	5,686	1.52											69.7
	Under \$2	2	62,964	1,875	2.98											136.7
	\$2 to \$4	4	129,541	986	0.76											34.9
	\$4 to \$6	3	92,703	928	1.00											45.9
	\$6 & over	3	89,117	1,897	2.13											97.7
\$40 to \$80	Total (Average)	52	2,967,756	39,857	1.34											61.5
	Under \$2	8	470,684	3,202	0.68											31.2
	\$2 to \$4	28	1,658,927	24,255	1.46											67.0
	\$4 to \$6	8	431,726	6,945	1.61											73.9
	\$6 & over	8	406,419	5,455	1.34											61.5
\$80 to \$120	Total (Average)	48	5,603,210	104,534	1.87											85.8
	Under \$2	20	2,217,649	38,350	1.73											79.4
	\$2 to \$4	15	1,759,679	30,856	1.75											80.3
	\$4 to \$6	7	836,118	17,015	2.03											93.1
	\$6 & over	6	789,764	18,313	2.32											106.4
\$120 & over	Total (Average)	25	9,973,942	262,668	2.63											120.6
	Under \$2	8	2,477,406	57,366	2.32											106.4
	\$2 to \$4	4	1,349,119	37,819	2.80											129.4
	\$4 to \$6	5	1,813,294	42,676	2.35											107.8
	\$6 & over	6	4,334,123	124,807	2.88											132.1

Average \$2.18

of a given size, and second, from store-group to store-group in each of the years for stores classified by size, with variable amounts invested in fixtures. The latter comparison is of chief interest. Without reviewing in detail the averages under the conditions established in the tables, it is of interest to observe that the expenditures increase with the amounts invested in fixtures per \$100 of total net sales. This condition obtains for the stores treated as a whole and, with minor exceptions, when they are classified by size. A single group of stores—those with sales of \$40,000 to \$80,000—for the combined years, may be used to illustrate this tendency. The average for this group of stores is \$1.68. For those which had investments in fixtures of less than \$2 for each \$100 of sales, the average amount is \$0.95. For those with fixture investments of \$2 to \$4, similarly measured, the average is \$1.64; for those with fixture investments of \$4 to \$6 it is \$1.89; and for those with fixture investments of \$6 and over, it is \$1.95. Similar increases hold for each of the other groups of stores, although the actual amounts, tending as they do to increase with the size of the stores, are different.

In Table 274, the expenditures for advertising per \$100 of total net sales are shown for the 135 stores classified by the amount of their fixture investment in 1919. For the entire group of stores the average for this year is \$2.18, as compared to \$2.28 for the combined years. For the group of stores with sales of \$40,000 to \$80,000,

it is \$1.34, as contrasted with \$1.68 for the combined years. In this group, however, there is the same tendency for the expenditures to increase with an increase in fixture investments per \$100 of total net sales.

It is unnecessary to review the actual amounts of advertising expenditure for stores in 1918 and 1914. They are contained in Tables 275 and 276, respectively. It is, however, advisable again to call to the reader's attention the fact that, while 135 identical stores are studied from year to year, both the sales and the investments in fixtures in the stores varied from year to year, with the result that the same stores are not encountered in a given sales or fixture investment group. In spite of this fact, however, there is an advantage in using a group of identical stores over one in which not only sales and fixtures, but also the number, vary.

Because of the direct relationship which obtains between fixture investments per \$100 of total net sales and advertising expenditures, similarly measured, it has been thought of interest to include Tables 277 to 280, inclusive, which show for the 135 stores, the average amounts invested in fixtures per \$100 of total net sales for stores having different classified amounts of expenditure for advertising in relation to sales. The stores are classified according to size.

For the combined years for all the stores, the average fixture investment per \$100 of total net sales is \$4.70. For the stores with sales of less than \$40,000 it is \$5.26, and from this

TABLE 275
























TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales							
					Amount	Per Cent.						
						Graphic						Actual
						0	20	40	60	80	100	
Total (Average)	Total (Average)	135	\$13,360,145	\$293,780	\$2.20							100.0
	Under \$2	20	2,163,476	33,524	1.55							70.5
	\$2 to \$4	45	3,706,654	75,135	2.03							92.3
	\$4 to \$6	34	2,807,944	64,292	2.29							104.1
	\$6 & over	36	4,682,071	120,829	2.58							117.3
Under \$40	Total (Average)	37	1,117,468	17,642	1.58							71.8
	Under \$2	4	124,966	1,735	1.39							63.2
	\$2 to \$4	8	269,792	4,076	1.51							68.6
	\$4 to \$6	11	297,192	5,363	1.81							82.3
	\$6 & over	14	425,518	6,448	1.52							69.1
\$40 to \$80	Total (Average)	56	3,239,547	51,826	1.60							72.7
	Under \$2	8	434,936	4,353	1.00							45.5
	\$2 to \$4	22	1,335,132	22,641	1.70							77.3
	\$4 to \$6	15	779,116	12,045	1.55							70.5
	\$6 & over	11	690,363	12,787	1.85							84.1
\$80 to \$180	Total (Average)	28	3,296,407	76,369	2.32							105.5
	Under \$2	5	593,109	10,709	1.81							82.3
	\$2 to \$4	12	1,417,061	31,290	2.21							100.5
	\$4 to \$6	5	654,591	16,639	2.54							115.5
	\$6 & over	6	633,646	17,731	2.80							127.3
\$180 & over	Total (Average)	14	5,704,723	147,943	2.59							117.7
	Under \$2	3	1,010,465	16,727	1.66							75.5
	\$2 to \$4	3	684,669	17,128	2.50							113.6
	\$4 to \$6	3	1,077,045	30,225	2.81							127.7
	\$6 & over	5	2,932,544	83,863	2.86							130.0

Average \$2.20

TABLE 276

TOTAL NET SALES, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Total Advertising	Advertising per \$100 of Total Net Sales										
					Amount	For Cent.									Actual
						Graphic									
						0	20	40	60	80	100	120	140	160	
Total (Average)	Total (Average)	135	\$8,297,530	\$216,917	\$2.61										100.0
	Under \$2	14	628,751	13,028	2.07										79.3
	\$2 to \$4	35	1,824,382	37,391	2.05										78.5
	\$4 to \$6	29	1,859,448	50,536	2.72										104.2
	\$6 & over	57	3,984,949	115,962	2.91										111.5
Under \$40	Total (Average)	63	1,628,016	31,019	1.91										73.2
	Under \$2	8	215,927	2,178	1.01										38.7
	\$2 to \$4	16	400,826	7,651	1.91										73.2
	\$4 to \$6	13	333,624	5,424	1.63										62.5
	\$6 & over	26	677,639	15,766	2.33										89.3
\$40 to \$80	Total (Average)	45	2,464,877	53,759	2.18										83.5
	Under \$2	4	201,671	2,912	1.44										55.2
	\$2 to \$4	13	761,538	14,837	1.95										74.7
	\$4 to \$6	8	442,609	12,305	2.78										106.5
	\$6 & over	20	1,059,059	23,705	2.24										85.8
\$80 to \$180	Total (Average)	22	2,509,827	72,541	2.89										110.7
	Under \$2	2	211,153	7,938	3.76										144.1
	\$2 to \$4	6	662,018	14,903	2.25										86.2
	\$4 to \$6	7	902,215	28,307	3.14										120.3
	\$6 & over	7	734,441	21,393	2.91										111.5
\$180 & over	Total (Average)	5	1,694,810	59,598	3.52										134.9
	Under \$2	-	-	-	-										-
	\$2 to \$4	-	-	-	-										-
	\$4 to \$6	1	181,000	4,500	2.49										95.4
	\$6 & over	4	1,513,810	55,098	3.64										139.5

Average \$2.61

TABLE 277
























TOTAL NET SALES, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER \$100
OF TOTAL NET SALES, FOR 135 IDENTICAL STORES CLASSIFIED BY SIZE,
AND BY AMOUNT OF ADVERTISING PER \$100 OF TOTAL NET
SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Store- years	Total Net Sales	Amount of Fixture Account	Fixture Account per \$100 of Total Net Sales											
					Amount	Per Cent.										
						Graphic										
						0	20	40	60	80	100	120	140	160	Actual	
Total (Average)	Total (Average)	405	\$40,576,908	\$1,908,079	\$4.70											100.0
	Under \$1	99	6,041,768	217,855	3.61											76.9
	\$1 to \$2	128	9,375,659	354,297	3.78											80.4
	\$2 to \$3	109	14,595,172	674,077	4.62											99.3
	\$3 & over	69	10,564,309	661,850	6.26											133.2
Under \$40	Total (Average)	112	3,119,809	164,125	5.26											111.9
	Under \$1	31	919,298	43,996	4.79											101.9
	\$1 to \$2	44	1,214,515	63,129	5.20											117.6
	\$2 to \$3	20	546,408	34,119	6.24											132.8
	\$3 & over	17	439,588	22,881	5.21											110.9
\$40 to \$80	Total (Average)	153	8,672,180	377,800	4.36											92.8
	Under \$1	50	2,797,430	104,578	3.74											79.6
	\$1 to \$2	50	2,771,467	122,201	4.41											93.8
	\$2 to \$3	35	2,034,191	84,959	4.18											88.9
	\$3 & over	18	1,059,182	66,062	6.18											131.5
\$80 to \$180	Total (Average)	98	11,411,444	431,319	3.78											80.4
	Under \$1	16	1,763,073	58,204	3.30											70.2
	\$1 to \$2	27	3,166,728	94,473	2.98											63.4
	\$2 to \$3	33	3,948,606	149,388	3.78											80.4
	\$3 & over	22	2,533,037	129,254	5.10											108.5
\$180 & over	Total (Average)	42	17,373,475	934,835	5.39											114.5
	Under \$1	2	561,967	11,077	1.97											41.9
	\$1 to \$2	7	2,222,949	74,494	3.35											71.3
	\$2 to \$3	21	8,066,057	405,611	5.03											107.0
	\$3 & over	12	6,522,502	443,653	6.80											144.7

Average \$4.70

TABLE 278

TOTAL NET SALES, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER \$100
OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Amount of Fixture Account	Fixture Account per \$100 of Total Net Sales											
					Amount	Per Cent.								Actual		
						Graphic										
					0	20	40	60	80	100	120	140	160	180	200	
Total (Average)	Total (Average)	155	\$18,919,233	\$758,774	\$3.90											100.0
	Under \$1	39	3,049,266	93,171	3.06											78.5
	\$1 to \$2	39	3,903,793	128,510	3.29											84.4
	\$2 to \$3	42	8,280,017	339,711	4.10											105.1
	\$3 & over	15	3,636,157	177,392	4.81											123.3
Under \$40	Total (Average)	12	374,325	16,697	4.46											114.4
	Under \$1	5	159,936	5,645	3.53											90.5
	\$1 to \$2	4	113,058	5,592	4.95											126.9
	\$2 to \$3	1	28,261	2,050	7.25											185.9
	\$3 & over	2	73,070	3,410	4.67											119.7
\$40 to \$80	Total (Average)	52	2,967,756	107,639	3.63											93.1
	Under \$1	21	1,225,703	41,104	3.35											85.9
	\$1 to \$2	17	927,429	31,111	3.35											85.9
	\$2 to \$3	11	633,359	26,042	4.11											105.4
	\$3 & over	3	181,265	9,582	5.29											135.6
\$80 to \$180	Total (Average)	48	5,603,210	175,362	3.13											80.3
	Under \$1	12	1,329,317	41,033	3.09											79.2
	\$1 to \$2	14	1,579,572	45,698	2.77											71.0
	\$2 to \$3	17	2,109,129	67,271	3.19											81.8
	\$3 & over	5	585,192	23,360	3.99											102.3
\$180 & over	Total (Average)	23	9,973,942	438,876	4.40											112.8
	Under \$1	1	334,310	5,389	1.61											41.3
	\$1 to \$2	4	1,283,734	48,109	3.75											96.2
	\$2 to \$3	13	5,509,268	244,348	4.44*											113.8
	\$3 & over	5	2,846,630	141,030	4.95											126.9

Average \$3.90

amount the averages diminish to \$3.78, for the stores with sales of \$80,000 to \$180,000, and increase to \$5.38 for those with sales of \$180,000 and over. Within each group of stores, classified by size, and for the total, the average fixture investment

in terms of sales increases as expenditures for advertising, similarly measured, increase. The group of stores which had sales between \$40,000 and \$80,000 may be used to illustrate these increases. The average for the entire group is \$4.36. For those

which expended the smallest amount for advertising in relation to sales, the average is \$3.74, and for those which expended most, it is \$6.18. That is, over the entire range, the average amounts increase. Within the range, an inverse condition obtains.

Similar, but somewhat different amounts are found for the various groups of stores in each of the other years considered. These are shown in actual amounts and in graphic form in the tables.

In Tables 281 to 284, inclusive, the average amounts expended for advertising in stores classified by size and by fixture investment per \$100 of total net sales are expressed as proportionate parts of \$100 of selling expense. Table 281 refers to the combined years and Tables 282 to 284, inclusive, to 1919, 1918, and 1914, respectively.

For the combined years, the average expenditure for advertising per \$100 of selling expense is \$20.85. Over the entire range of stores, the amounts increase as the stores increase in size, the average amount for those with sales of \$40,000 to \$80,000 being the lowest for any of the groups. When the stores are classified by size and further by the amounts invested in fixtures, the amounts expended for advertising per \$100 of selling expense increase with the fixture investment per \$100

of total net sales. To this general rule, for some of the groups, there are clear exceptions and too much significance ought not to be assigned to the tendency indicated. Indeed, probably the most important function which this and the corresponding tables for the individual years have, is to develop norms for the different groups of stores and not the tendencies for the amounts to increase or decrease under different conditions of operation. The facts are given as they were determined largely because, so far as is known, they represent the only available data upon this topic, for stores in the retail field.

C.—Summary.

- (1). The amounts of advertising expenditure per \$100 of total net sales increase as the amounts invested in fixtures in relation to sales increase. This holds for all stores and for stores of a given size. It is true also for each of the years.
- (2). The proportions of selling expense attributable to advertising increase as the amounts invested in fixtures per \$100 of total net sales increase. This holds for all stores and for stores of a given size.

TABLE 279





















TOTAL NET SALES, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER \$100
OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Amount of Fixture Account	Fixture Account per \$100 of Total Net Sales				
					Amount	Per Cent.			Actual
						Graphic			
						0 20 40 60 80 100 120 140			
Total (Average)	Total (Average)	135	\$13,360,145	\$620,889	\$4.65		100.0		
	Under \$1	36	2,112,506	87,312	4.13		88.2		
	\$1 to \$2	44	3,258,720	119,980	3.68		79.1		
	\$2 to \$3	35	4,278,153	204,313	4.78		102.8		
	\$3 & over	20	3,710,766	209,284	5.64		121.3		
Under \$40	Total (Average)	37	1,117,468	62,352	5.58		120.0		
	Under \$1	10	323,214	19,400	6.00		129.0		
	\$1 to \$2	18	520,474	28,226	5.42		116.6		
	\$2 to \$3	6	175,690	9,932	5.65		121.5		
	\$3 & over	3	98,090	4,794	4.89		105.2		
\$40 to \$80	Total (Average)	56	3,239,547	132,364	4.09		88.0		
	Under \$1	22	1,212,225	46,842	3.86		83.0		
	\$1 to \$2	16	912,773	38,913	4.26		91.6		
	\$2 to \$3	13	793,452	30,674	3.87		83.2		
	\$3 & over	5	321,097	15,935	4.96		106.7		
\$80 to \$180	Total (Average)	28	3,296,407	127,804	3.87		83.2		
	Under \$1	3	349,410	15,382	4.40		94.6		
	\$1 to \$2	7	886,258	26,456	2.99		64.3		
	\$2 to \$3	10	1,138,028	34,412	3.02		64.9		
	\$3 & over	8	924,711	51,554	5.57		119.8		
\$180 & over	Total (Average)	14	5,704,723	298,369	5.23		112.5		
	Under \$1	1	227,657	5,688	2.50		53.8		
	\$1 to \$2	3	939,215	26,385	2.81		60.4		
	\$2 to \$3	6	2,170,983	129,295	5.96		128.2		
	\$3 & over	4	2,366,868	137,001	5.79		124.5		

Average \$4.65

TABLE 280

TOTAL NET SALES, FIXTURE ACCOUNT, AND AMOUNT OF FIXTURE ACCOUNT PER \$100
OF TOTAL NET SALES, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT
OF ADVERTISING PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Advertising per \$100 of Total Net Sales	Number of Stores	Total Net Sales	Amount of Fixture Account	Fixture Account per \$100 of Total Net Sales												
					Amount	Per Cent.											Actual
						Graphic											
						0	20	40	60	80	100	120	140	160	180	200	
Total (Average,	Total (Average)	135	\$8,297,530	\$548,416	\$6.61												100.0
	Under \$1	24	879,996	37,372	4.25												64.3
	\$1 to \$2	45	2,213,146	105,807	4.78												72.3
	\$2 to \$3	32	2,037,002	130,053	6.39												96.5
	\$3 & over	34	3,167,386	275,184	8.69												131.5
Under \$40	Total (Average)	63	1,628,016	85,076	5.23												79.1
	Under \$1	18	436,148	18,951	4.35												65.8
	\$1 to \$2	22	580,983	29,311	5.05												76.4
	\$2 to \$3	13	342,457	22,137	6.46												97.7
	\$3 & over	12	268,428	14,677	5.47												82.8
\$40 to \$80	Total (Average)	45	2,464,877	137,597	5.58												84.4
	Under \$1	7	359,502	16,632	4.63												70.3
	\$1 to \$2	17	931,265	52,177	5.60												84.7
	\$2 to \$3	11	607,290	28,243	4.65												70.3
	\$3 & over	10	566,820	40,545	7.15												108.2
\$80 to \$180	Total (Average)	22	2,509,827	128,153	5.11												77.3
	Under \$1	1	84,346	1,789	2.12												32.1
	\$1 to \$2	6	700,898	24,319	3.47												52.5
	\$2 to \$3	6	701,449	47,705	6.80												102.9
	\$3 & over	9	1,023,134	54,340	5.31												80.3
\$180 & over	Total (Average)	5	1,694,810	197,590	11.66												176.4
	Under \$1	-	-	-	-												-
	\$1 to \$2	-	-	-	-												-
	\$2 to \$3	2	385,806	31,968	8.29												125.4
	\$3 & over	3	1,309,004	165,622	12.65												191.4

Average \$6.61

TABLE 281

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 135 IDENTICAL STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914, COMBINED

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Store- years	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense													
					Amount	Per Cent.												
						Graphic												Actual
						0	20	40	60	80	100	120	140					
Total (Average)	Total (Average)	405	\$4,428,098	\$923,442	\$20.85													100.0
	Under \$2	72	832,922	147,345	17.69													84.8
	\$2 to \$4	131	965,648	206,442	20.94													100.4
	\$4 to \$6	86	798,319	182,392	22.85													109.6
	\$6 & over	116	1,811,209	387,263	21.38													102.5
Under \$40	Total (Average)	112	263,714	54,347	20.61													98.8
	Under \$2	14	25,921	5,768	22.33													107.1
	\$2 to \$4	28	64,602	12,713	19.68													94.4
	\$4 to \$6	27	58,105	11,735	20.20													96.9
	\$6 & over	43	115,086	24,111	20.95													100.5
\$40 to \$80	Total (Average)	153	806,361	145,442	18.04													86.5
	Under \$2	20	76,674	10,467	13.30													63.8
	\$2 to \$4	63	314,078	61,733	19.66													94.3
	\$4 to \$6	31	158,148	31,295	19.79													94.9
	\$6 & over	39	255,461	41,947	16.42													76.8
\$80 to \$180	Total (Average)	98	1,253,879	253,444	20.21													96.9
	Under \$2	27	307,174	56,997	18.56													89.0
	\$2 to \$4	33	405,623	77,049	19.00													91.1
	\$4 to \$6	19	274,227	61,961	22.59													108.3
	\$6 & over	19	266,855	57,437	21.52													103.2
\$180 & over	Total (Average)	42	2,104,144	470,209	22.35													107.2
	Under \$2	11	421,153	74,093	17.59													84.4
	\$2 to \$4	7	201,345	54,947	27.29													130.9
	\$4 to \$6	9	307,839	77,401	25.14													120.6
	\$6 & over	15	1,173,807	263,768	22.47													107.8

Average \$20.85

TABLE 282

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919









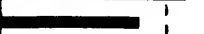















Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense											
					Amount	Per Cent.										
						Graphic										Actual
						0	20	40	60	80	100	120	140	160		
Total (Average)	Total (Average)	135	\$1,992,310	\$412,745	\$20.72											100.0
	Under \$2	38	535,232	100,793	18.83											90.9
	\$2 to \$4	51	428,443	93,916	21.92											105.8
	\$4 to \$6	23	326,474	67,564	20.70											99.9
	\$6 & over	23	702,161	150,472	21.43											103.4
Under \$40	Total (Average)	12	24,945	5,686	22.79											110.0
	Under \$2	2	3,398	1,875	55.18											266.3*
	\$2 to \$4	4	8,213	986	12.01											58.0
	\$4 to \$6	3	7,582	923	12.24											59.1
	\$6 & over	3	5,752	1,897	32.97											159.7
\$40 to \$80	Total (Average)	52	229,272	39,857	17.38											83.9
	Under \$2	8	29,693	3,202	10.78											52.0
	\$2 to \$4	28	118,454	24,255	20.48											98.8
	\$4 to \$6	8	43,053	6,945	16.13											77.8
	\$6 & over	8	38,072	5,455	14.33											69.2
\$80 to \$180	Total (Average)	48	587,583	104,534	17.79											85.9
	Under \$2	20	226,744	38,350	16.91											81.6
	\$2 to \$4	15	168,668	30,856	18.29											88.3
	\$4 to \$6	7	96,369	17,015	17.66											85.2
	\$6 & over	6	95,802	18,313	19.12											92.3
\$180 & over	Total (Average)	23	1,150,510	262,668	22.83											110.2
	Under \$2	8	275,397	57,366	20.83											100.5
	\$2 to \$4	4	133,108	37,819	28.41											137.1
	\$4 to \$6	5	179,470	42,676	23.78											114.8
	\$6 & over	6	562,535	124,807	22.19											107.1

Average \$20.72

* Full length not shown

TABLE 283

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1918

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense											
					Amount.	Per Cent.										
						Graphic										Actual
						0	20	40	60	80	100	120	140			
Total (Average)	Total (Average)	135	\$1,475,360	\$293,780	\$19.94											100.0
	Under \$2	20	244,748	33,524	13.70											68.7
	\$2 to \$4	45	370,532	75,135	20.29											101.7
	\$4 to \$6	34	267,521	64,292	24.03											120.5
	\$6 & over	36	590,559	120,829	20.46											102.6
Under \$40	Total (Average)	37	92,371	17,642	19.10											95.8
	Under \$2	4	9,959	1,735	17.42											87.4
	\$2 to \$4	8	19,976	4,076	20.40											102.3
	\$4 to \$6	11	23,674	5,383	22.74											114.0
	\$6 & over	14	38,762	6,448	16.63											83.4
\$40 to \$30	Total (Average)	56	299,694	51,826	17.29											86.7
	Under \$2	8	33,916	4,353	12.83											64.3
	\$2 to \$4	22	121,256	22,641	18.67											93.6
	\$4 to \$6	15	65,955	12,045	18.26											91.6
	\$6 & over	11	78,567	12,787	16.28											81.6
\$30 to \$180	Total (Average)	28	363,676	76,369	21.00											105.3
	Under \$2	5	55,117	10,709	19.43											97.4
	\$2 to \$4	12	161,063	31,290	19.43											97.4
	\$4 to \$6	5	67,483	16,639	24.66											123.7
	\$6 & over	6	80,013	17,731	22.16											111.1
\$180 & over	Total (Average)	14	717,619	147,943	20.62											103.4
	Under \$2	3	145,756	16,727	11.48											57.6
	\$2 to \$4	3	68,237	17,128	25.10											125.9
	\$4 to \$6	3	110,409	30,225	27.39											137.3
	\$6 & over	6	393,217	83,863	21.33											107.0

Average \$19.94

TABLE 284

TOTAL SELLING EXPENSE, ADVERTISING, AND AMOUNT OF ADVERTISING PER \$100 OF SELLING EXPENSE, FOR 135 STORES CLASSIFIED BY SIZE AND BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1914

Classified Total Net Sales (in 000's)	Amount of Fixture Account per \$100 of Total Net Sales	Number of Stores	Total Selling Expense	Total Advertising	Advertising per \$100 of Selling Expense											
					Amount	Per Cent.										
						Graphic										Actual
						0	20	40	60	80	100	120	140			
Total (Average)	Total (Average)	135	\$962,428	\$216,817	\$22.54											100.0
	Under \$2	14	52,942	13,028	24.61											109.2
	\$2 to \$4	35	186,673	37,391	20.03											88.9
	\$4 to \$6	29	204,324	50,536	24.73											109.7
	\$6 & over	57	518,489	115,962	22.37											99.6
Under \$40	Total (Average)	63	146,308	31,019	21.19											94.0
	Under \$2	8	12,664	2,178	17.34											76.9
	\$2 to \$4	16	36,413	7,651	21.01											93.2
	\$4 to \$6	13	26,849	5,424	20.20											89.6
	\$6 & over	26	70,572	15,766	22.34											99.1
\$40 to \$80	Total (Average)	45	277,395	53,759	19.38											86.0
	Under \$2	4	15,065	2,912	19.33											85.8
	\$2 to \$4	13	74,369	14,837	19.95											88.5
	\$4 to \$6	8	49,140	12,305	25.04											111.1
	\$6 & over	20	138,822	23,705	17.08											75.8
\$80 to \$180	Total (Average)	22	302,620	72,541	23.97											106.3
	Under \$2	2	25,313	7,938	31.36											139.1
	\$2 to \$4	6	75,892	14,903	19.64											87.1
	\$4 to \$6	7	110,375	28,307	25.65											113.8
	\$6 & over	7	91,040	21,383	23.50											104.3
\$180 & over	Total (Average)	5	236,015	59,598	25.25											112.0
	Under \$2	-	-	-	-											-
	\$2 to \$4	-	-	-	-											-
	\$4 to \$6	1	17,960	4,500	25.06											111.2
	\$6 & over	4	218,055	55,098	25.27											112.1

Average \$22.54

VI. OTHER SELLING EXPENSE

1.—YEARLY AMOUNTS OF OTHER SELLING EXPENSE FOR STORES CLASSIFIED BY YEARS, BY SIZE, AND BY LOCATION.

The foregoing discussion, pages 187 to 291, has to do with the expenditures for wages and salaries and advertising which are properly chargeable to selling expense, as defined in this study. The present section has to do with a group of miscellaneous expenses, which include expenditures for wrappings and containers, bushelling, and delivery. In view of the discussion in Volume III of the Bureau's study of *Costs, Merchandising Practices, Advertising and Sales in the Retail Distribution of Clothing*, it is thought to be unnecessary to

discuss the expenses for these different items separately. Accordingly, they have been grouped under one general heading, which for convenience is called "other" selling expense. Moreover, the analysis is condensed, the tables showing in Section 1 only the total amounts for stores classified by years, by size, and by location. Under Sections 2, 3, and 4, respectively, the stores are further classified according to amounts of inventory, amounts of sales per full-time sales-person, and amounts of fixture investment per \$100 of total net sales. For the stores so classified, the expenses are expressed in terms of total net sales and total selling expense.

TABLE 285

AMOUNT OF OTHER SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$100 OF TOTAL SELLING EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE, 1919, 1918, AND 1914

Years	Number of Store-years	Other Selling Expense per \$100 of Total Net Sales							Other Selling Expense per \$100 of Total Selling Expense								
		Amount	Per Cent.						Amount	Per Cent.							
			Graphic							Actual	Graphic						Actual
			0	20	40	60	80	100	120		0	20	40	60	80	100	
Total (Average)	462	\$1.30							100.0	\$12.06							100.0
1919	154	1.24							95.4	11.94							99.0
1918	154	1.35							103.8	12.39							102.7
1914	154	1.35							103.8	11.81							97.9
		Average \$1.30							Average \$12.06								

A.—Yearly Amounts of Other Selling Expense per \$100 of Total Net Sales and per \$100 of Total Selling Expense, 1919, 1918, and 1914.

In Table 285, the miscellaneous or other expense of 154 identical stores is expressed in terms of \$100 of total net sales and \$100 of selling expense for the years 1919, 1918, and 1914, individually and combined. For the combined years, \$1.30 per \$100 of total net sales was expended under this heading; the corresponding amount per \$100 of selling expense was \$12.06. For 1914 and 1918, the average expenses per \$100 of total net sales for these miscellaneous purposes were identical; between 1918 and 1919, the average amounts decreased. In terms of total selling expense, the average amount increased between 1914 and 1918, and decreased between 1918 and 1919. The graphic part of this table shows the relations of the amounts for the stores in the different years. It should be remembered that they represent the balance which is left after wages and salaries and advertising, as constituent parts of selling expense, have been paid. The stores which are used in this comparison are the same as those found in the analysis of wages and salaries and advertising.

B.—Yearly Amounts of Other Selling Expense per \$100 of Total Net Sales and per \$100 of Total Selling Expense, for Stores in 1919, 1918, and 1914, Classified by Size.

In Table 286, the 154 stores are classified by size and further by years. For each group of stores for each of the years the other selling expenses are expressed in terms of sales and of selling expense. As thus expressed, the amounts increase as stores increase in size. For each group of stores classified by size, the amounts in terms of sales tend, on the whole, to decrease between 1914 and 1918, and 1918 and 1919. The same observation applies to the amounts for one group of stores when they are expressed in terms of selling expense. For the remaining groups, the changes in the amounts are generally in an inverse direction. There are certain exceptions to this rule, and these are brought out in the actual amounts and graphic summary in Table 286.

*C.—Yearly Amounts of Other Selling Expense per \$100 of Total Net Sales and per \$100 of Total Selling Expense, for Stores in 1919, 1918, and 1914, Classified by Size of City in Which Located.**

In Table 287 the miscellaneous selling expenses are shown for the 154 stores classified by the size of the city in which located and also by years. The method of expressing them is first, in terms of sales, and second, in terms of selling expense. For the 345 store-years for stores in the small cities these expenses constitute, on the average, \$0.93 per \$100 of total net sales, while for the 117 store-years for the stores in the large cities, the

* Population figures are for 1920.

TABLE 286

AMOUNT OF OTHER SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$100 OF TOTAL SELLING EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE, 1919, 1918, AND 1914

Classified Total Net Sales (in 000's)	Years	Number of Stores- years	Other Selling Expense per \$100 of Total Net Sales										Other Selling Expense per \$100 of Total Selling Expense													
			Amount	Per Cent.										Amount	Per Cent.											
				Graphic											Actual	Graphic										Actual
				0	20	40	60	80	100	120	140	160	0	20		40	60	80	100	120						
Total (Average)	Total (Average)	442	\$1.30											100.0	\$12.06											100.0
	1919	154	1.24											95.4	11.94											99.0
	1918	154	1.35											103.6	12.39											102.7
	1914	154	1.35											103.6	11.61											97.9
Under \$40	Total (Average)	129	0.68											67.7	10.45											86.7
	1919	14	0.61											62.3	11.90											98.7
	1918	42	0.68											67.7	10.86											90.0
	1914	73	0.92											70.8	9.97											82.7
\$40 to \$90	Total (Average)	172	1.11											85.4	11.98											96.3
	1919	57	0.61											62.3	10.62											88.1
	1918	63	1.23											94.6	12.97											107.5
	1914	52	1.53											102.3	11.93											98.9
\$90 to \$180	Total (Average)	117	1.30											100.0	11.96											99.2
	1919	58	1.26											96.9	12.01											90.6
	1918	35	1.35											103.6	12.48											103.5
	1914	24	1.33											103.6	11.12											92.2
\$180 & over	Total (Average)	44	1.50											115.4	12.41											102.9
	1919	25	1.39											106.9	12.18											101.0
	1918	14	1.55											119.2	12.27											101.7
	1914	5	1.95											150.0	13.99											115.9

Average \$1.30

Average \$12.06

corresponding expense is \$1.65. In terms of selling expense the average amount for the stores in the small cities is \$9.99, and for those in the large cities, \$13.60. From year to year, for the stores in both city-groups, the amounts per \$100 of total net sales generally decrease. In terms of selling expense, for the stores in the small cities, the amounts increased from year to year; but for those in the large cities they increased be-

tween 1914 and 1918, and decreased between 1918 and 1919.

D.—Yearly Amounts of Other Selling Expense per \$100 of Total Net Sales and per \$100 of Total Selling Expense, for Stores Classified by Size and by Size of City, 1919, 1918, and 1914, Combined.*

In Table 288 the records of 154 identical stores are combined for the

* Population figures are for 1920.

TABLE 287

AMOUNT OF OTHER SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$100 OF TOTAL SELLING EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY, 1919, 1918, AND 1914

Size of City (in 000's)	Years	Number of Store-years	Other Selling Expense per \$100 of Total Net Sales												Other Selling Expense per \$100 of Total Selling Expense													
			Amount	Per Cent.											Amount	Per Cent.												
				Graphic												Actual	Graphic											Actual
				0	20	40	60	80	100	120	140	0	20	40	60		80	100	120									
Total (Average)	Total (Average)	462	\$1.30												100.0	\$12.06												100.0
	1919	154	1.24												95.4	11.94												92.0
	1918	154	1.35												105.9	12.39												105.7
	1914	154	1.35												105.9	11.81												97.9
Under 40	Total (Average)	345	0.93												71.5	9.99												62.9
	1919	115	0.81												70.0	10.22												64.7
	1918	115	0.96												73.6	10.09												68.6
	1914	115	0.86												73.6	9.48												78.1
40 and over	Total (Average)	117	1.65												126.0	13.60												112.9
	1919	39	2.55												119.2	13.14												109.0
	1918	39	1.73												133.1	14.09												116.8
	1914	39	1.79												137.7	13.83												114.7
			Average \$1.30												Average \$12.06													

years 1919, 1918, and 1914. In this table the basis of classification is the location of the stores and their size.

For the 462 store-years, for the stores irrespective of location, the average amount of miscellaneous expense per \$100 of total net sales is \$1.30. As the stores increase in size, the expenditures increase, the smallest average amount being \$0.88, for the stores with sales under \$40,000, and the largest, \$1.50 for those with sales of \$180,000 and over. Similar increases hold also for stores of increasing size when classified by location. Just how rapid these increases are, may be observed by consulting the table.

Table 288 also shows the amounts

which other selling expense constitutes of each \$100 of total selling expense. For the combined stores irrespective of size, the average is \$12.06. The smallest amount characterizes the stores with smallest sales and the largest amount, those with largest sales. Over the entire range of sizes, the average amounts vary from \$10.45 to \$12.41. For the stores in the small and in the large cities, the average amounts on the whole seem to decrease as the size of the stores increases, if the eight stores in the large cities having the smallest sales are omitted from consideration. The average for this group is clearly an exception to the rule and suggests that the data are probably incomplete.

TABLE 288

AMOUNT OF OTHER SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$100 OF TOTAL SELLING EXPENSE, FOR 154 IDENTICAL STORES CLASSIFIED BY SIZE OF CITY AND STORE, 1919, 1918, AND 1914, COMBINED

Size of City (in 000's)	Classified Total Net Sales (in 000's)	Number of Store-years	Other Selling Expense per \$100 of Total Net Sales							Other Selling Expense per \$100 of Total Selling Expense							
			Amount	Per Cent.					Actual	Amount	Per Cent.					Actual	
				0	20	40	60	80			100	120	140	160	0		20
Total (Average)	Total (Average)	462	\$1.30						100.0	\$12.06						100.0	
	Under \$40	129	0.68						67.7	10.45						86.7	
	\$40 to \$80	172	1.11						85.4	11.98						92.3	
	\$80 to \$180	117	1.30						100.0	11.96						99.2	
	\$180 & over	44	1.50						115.4	12.41						105.9	
Under 40	Total (Average)	345	0.93						71.5	9.99						82.9	
	Under \$40	121	0.92						70.8	11.09						92.0	
	\$40 to \$80	138	0.68						66.2	9.84						81.5	
	\$80 to \$180	77	1.02						78.5	9.98						82.8	
	\$180 & over	9	0.95						73.1	9.13						75.7	
40 and over	Total (Average)	117	1.65						126.9	13.60						112.9	
	Under \$40	8	0.43						33.1	4.21						34.9	
	\$40 to \$80	34	1.58						121.5	17.86						148.1	
	\$80 to \$180	40	2.05						157.7	14.91						125.6	
	\$180 & over	35	1.57						120.8	12.79						106.1	
			Average \$1.30							Average \$12.06							

E.—Summary.

- (1). The amounts of other selling expense per \$100 of total net sales, for stores irrespective of size, remained constant between 1914 and 1918, and decreased between 1918 and 1919. For stores of a given size, the amounts decreased from year to year.
- (2). The proportion of total selling expense attributable to other selling expense, for stores irrespective of size, increased between 1914 and 1918, and decreased between 1918 and 1919. For stores of

a given size, the direction of change was not uniform.

- (3). The amounts of other selling expense per \$100 of total net sales increase with the size of the store. This holds for each of the years and for stores located either in small or in large cities.
- (4). The proportion of selling expense attributable to other selling expense, for stores irrespective of location, increases as stores increase in size. When the stores are classified by the size of the city in which located, the

amounts tend to decrease as the size of the store increases.

- (5). For stores of a given size, the amounts of other expense per \$100 of total net sales are higher in the large cities than in the small cities.
- (6). For stores of a given size, the proportions of total selling expense, classified as other selling expense, are higher in large, than in small cities.

2.—YEARLY AMOUNTS OF OTHER SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$100 OF TOTAL SELLING EXPENSE, FOR STORES CLASSIFIED BY AMOUNTS OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914.

In Table 289 the records of 149 stores are studied in order to determine for the combined years and for each of the years 1919, 1918, and 1914, the average amount of the miscellaneous selling expense per \$100 of total net sales and per \$100 of selling expense when the stores are classified by the amount of their inventory in relation to sales. This section of the discussion corresponds to similar analyses in the parts of the volume relating to total selling expense, to wages and salaries, and to advertising.

For this group of stores the average amount of miscellaneous selling expense per \$100 of total net sales is \$1.28. For 1914 the amount was \$1.33; for 1918, \$1.33, and for 1919, \$1.24. That is, the amounts are es-

entially identical with those for 154 stores shown in Table 285. Within each year and for the combined years, these expenses, when expressed in terms of sales, decrease as inventories in relation to sales increase. The average amounts in the combined years may be used to illustrate this tendency. For the stores having the smallest inventory—less than \$20 per \$100 of total net sales—the average amount is \$1.38. A similar amount characterizes those stores which had inventories between \$20 and \$40 in terms of sales. The smallest amount, applying to those which had the largest inventories, is \$0.98. Decreases similar to these hold for each of the different years. There are some exceptions in the direction of change, but these are relatively few and unimportant.

Table 289 also shows the amounts of other selling expense per \$100 of total selling expense. The average for the stores in the combined years is \$11.85. In 1914, it was \$11.55; in 1918, \$12.16; and in 1919, \$11.76. When the stores are classified by the amounts of inventory per \$100 of total net sales, the expenditures for miscellaneous selling purposes tend, on the whole, to decrease as the inventories in relation to sales increase. For the combined years, the decreases extend from \$16.38 to \$10.47. Similar decreases, with certain exceptions, are found for the stores in each of the different years. It is unnecessary to review these in detail, inasmuch as the table is self-explanatory and the graphic part of it makes it

easy to observe these relationships from group to group.

3.—YEARLY AMOUNTS OF OTHER SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$100 OF TOTAL SELLING EXPENSE, FOR STORES CLASSIFIED BY AMOUNTS OF SALES PER FULL-TIME SALES-PERSON, 1919, 1918, AND 1914.

In Table 290 the records of 146 stores are presented in order to determine the amount of other selling

expense expressed in terms of sales and total selling expense for stores classified by the amount sold per full-time sales-person for the years 1919, 1918, and 1914, individually and combined. The averages for the entire group for the combined and individual years closely correspond to those shown in Table 289, and require no particular explanation. Within each year and the combined years there seems to be no unmistakable tendency for the amounts to increase or to de-

TABLE 289

AMOUNT OF OTHER SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$100 OF TOTAL SELLING EXPENSE, FOR 149 IDENTICAL STORES CLASSIFIED BY AMOUNT OF INVENTORY PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Inventory per \$100 of Total Net Sales	Number of Store-years	Other Selling Expense per \$100 of Total Net Sales										Other Selling Expense per \$100 of Total Selling Expense																																
			Amount	Per Cent.										Amount	Per Cent.																														
				Graphic											Graphic																														
				0	20	40	60	80	100	120	140	Actual	0		20	40	60	80	100	120	140	160	180	Actual																					
Total (Average)	Total (Average)	447	\$1.28											100.0	\$11.85											100.0																			
	Under \$40	14	1.38											107.8	16.38											138.2																			
	\$40 to \$80	168	1.35											107.8	11.85											100.0																			
	\$80 to \$180	177	1.16											90.6	11.60											97.9																			
	\$180 & over	88	0.98											76.6	10.47											88.4																			
1919	Total (Average)	149	1.84											98.9	21.76											99.2																			
	Under \$40	7	1.38											107.8	15.71											132.6																			
	\$40 to \$80	83	1.26											98.4	11.48											96.9																			
	\$80 to \$180	51	1.16											90.6	12.14											102.4																			
	\$180 & over	8	0.69											65.9	9.09											76.7																			
1918	Total (Average)	149	1.33											103.9	12.16											102.6																			
	Under \$40	3	1.22											95.3	20.06											169.3																			
	\$40 to \$80	46	1.47											114.8	11.73											99.0																			
	\$80 to \$180	60	1.30											101.6	13.28											112.1																			
	\$180 & over	40	0.86											76.0	10.33											87.2																			
1914	Total (Average)	149	1.33											103.9	11.56											97.6																			
	Under \$40	4	1.64											128.1	15.04											126.9																			
	\$40 to \$80	39	1.68											131.3	13.26											111.9																			
	\$80 to \$180	66	0.99											77.3	9.65											76.4																			
	\$180 & over	40	1.09											85.2	10.94											92.3																			
Average \$1.28																							Average \$11.85																						

Average \$1.28

Average \$11.85

crease with the sales per full-time sales-person. A relationship between the amounts of such expenses and the activity of the salesmen can hardly be expected. The data are presented in this form largely to complete the analysis and in the hope that they will be of service to merchants in comparing their expenses with the

amounts for the different groups of stores.

Table 290 also shows the amounts of other selling expense as proportionate parts of selling expense. For the combined years, there seems to be a general tendency for this expense to increase as the amounts sold per full-time sales-person increase. In the

TABLE 290

AMOUNT OF OTHER SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$100 OF TOTAL SELLING EXPENSE, FOR 146 IDENTICAL STORES CLASSIFIED BY AMOUNTS OF SALES PER FULL-TIME SALES-PERSON, 1919, 1918, AND 1914

Years	Amount of Sales per Full-time Sales-person (in 000's)	Number of Store-years	Other Selling Expense per \$100 of Total Net Sales										Other Selling Expense per \$100 of Total Selling Expense																						
			Amount	Per Cent.										Amount	Per Cent.																				
				Graphic											Actual	Graphic										Actual									
				0	20	40	60	80	100	120	140	160	0	20		40	60	80	100	120	140														
Total (Average)	Total (Average)	438	\$1.28											100.0	\$11.94											100.0									
	Under \$12	151	1.01											78.9	8.99											75.3									
	\$12 to \$16	107	1.39											108.6	12.61											105.6									
	\$16 to \$24	118	1.26											98.4	11.23											94.2									
	\$24 to \$32	39	1.53											119.5	15.22											127.5									
	\$32 & over	23	1.31											102.3	15.71											131.6									
1919	Total (Average)	146	1.22											95.3	11.80											98.9									
	Under \$12	15	1.10											85.9	12.01											100.6									
	\$12 to \$16	30	0.87											70.0	8.60											72.0									
	\$16 to \$24	61	1.09											85.2	9.55											80.0									
	\$24 to \$32	21	1.58											123.4	15.85											132.7									
	\$32 & over	19	1.39											108.6	16.02											154.2									
1918	Total (Average)	146	1.34											104.7	12.25											102.6									
	Under \$12	50	1.00											78.1	9.78											81.9									
	\$12 to \$16	42	1.35											105.5	11.98											100.3									
	\$16 to \$24	37	1.49											116.4	13.08											109.5									
	\$24 to \$32	14	1.41											110.2	13.93											116.7									
	\$32 & over	3	0.42											32.8	7.60											63.7									
1914	Total (Average)	146	1.33											103.9	11.77											93.6									
	Under \$12	86	0.99											77.3	8.24											69.0									
	\$12 to \$16	35	1.85											144.5	16.55											138.6									
	\$16 to \$24	20	1.51											119.0	15.35											120.6									
	\$24 to \$32	4	0.93											72.7	8.15											60.3									
	\$32 & over	1	0.74											57.8	25.62											214.6 ^a									
Average \$1.28																		Average \$11.94																	

Average \$1.28

Average \$11.94

^aFull length not shown

individual years, however, the averages become erratic in several instances, suggesting that a group of miscellaneous expenses is being studied, and that there are elements which control them other than varying sales of salesmen.

4.—YEARLY AMOUNTS OF OTHER SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$100 OF TOTAL SELLING EXPENSE, FOR STORES

CLASSIFIED BY AMOUNTS INVESTED IN FIXTURES PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914.

In Table 291 the records of 135 stores are presented for the years 1919, 1918, and 1914, individually and combined. The stores are classified according to the amounts invested in fixtures per \$100 of total net sales. For each group of stores classified in this form, the amounts

TABLE 291

AMOUNT OF OTHER SELLING EXPENSE PER \$100 OF TOTAL NET SALES AND PER \$100 OF TOTAL SELLING EXPENSE, FOR 135 IDENTICAL STORES CLASSIFIED BY AMOUNT OF FIXTURE ACCOUNT PER \$100 OF TOTAL NET SALES, 1919, 1918, AND 1914

Years	Amount of Fixture Account per \$100 of Total Net Sales	Number of Store- years	Other Selling Expense per \$100 of Total Net Sales						Other Selling Expense per \$100 of Total Selling Expense							
			Amount	Per Cent.					Amount	Per Cent.						
				Graphic						Graphic						
				0	20	40	60	80		100	120	140	0	20	40	60
Total (Average)	Total (Average)	425	\$1.29						100.0	\$11.87						100.0
	Under \$2	72	1.11						86.0	10.73						90.4
	\$2 to \$4	121	1.21						95.8	12.83						106.1
	\$4 to \$6	86	1.52						117.8	14.06						125.9
	\$6 & over	116	1.33						103.1	10.51						88.5
1919	Total (Average)	135	1.24						96.1	11.74						98.9
	Under \$2	38	1.15						89.1	11.26						94.9
	\$2 to \$4	61	1.14						88.4	13.02						109.7
	\$4 to \$6	23	1.33						103.1	12.90						106.7
	\$6 & over	23	1.35						104.7	10.78						90.8
1918	Total (Average)	135	1.35						104.7	12.19						102.7
	Under \$2	20	1.03						79.8	9.14						77.0
	\$2 to \$4	45	1.42						110.1	14.24						120.0
	\$4 to \$6	34	1.58						122.5	16.68						139.7
	\$6 & over	36	1.28						99.2	10.18						85.8
1914	Total (Average)	135	1.35						104.7	11.63						98.0
	Under \$2	14	1.07						82.9	12.74						107.3
	\$2 to \$4	35	0.97						75.2	9.55						80.5
	\$4 to \$6	29	1.77						137.2	16.08						135.5
	\$6 & over	57	1.37						106.2	10.61						88.6

Average \$1.29

Average \$11.87

of other selling expense, measured in terms of sales and total selling expense, have been computed. For the combined years, the average amount in terms of sales is \$1.29. The amounts for the individual years closely correspond to those shown in Tables 289 and 290.

In the combined years, there seems to be a general tendency for the amounts to increase as the fixture investments per \$100 of total net sales increase. Moreover, this condition tends to obtain, but with less certainty, in each of the years. For the stores which had the least investment in fixtures per \$100 of total net sales, the average miscellaneous expenditure is \$1.11, while, for those which had the largest investment in fixtures per \$100 of total net sales, the average is \$1.33. From year to year it

appears that these amounts are essentially uniform.

Table 291 also shows the amounts of other selling expense expressed as proportionate parts of total selling expense. For the combined years, \$11.87 was expended for this purpose out of each \$100 of selling expense. As the amounts invested in fixtures per \$100 of total net sales increase, there seems to be no definite tendency for these amounts to increase or to decrease. In some of the groups, the average expenditures for this purpose are unduly low. In others, they are abnormally high, again suggesting the fact that the expenses which are combined are of a miscellaneous type. By expressing them in terms of selling expense there seems to be no tendency for them to be reduced to a uniform or standard amount.

VII. RATIOS OF OPERATION FOR STORES CLASSIFIED BY RELATIVE RATES OF NET PROFIT PER \$100 OF TOTAL NET SALES, 1919

In view of the fact that the different elements of expense attributable to selling have been determined for stores classified by years, by size, and by location, and that these expenses have been expressed in terms of sales and of total operating expense with simple and complex units, it was thought to be of interest to merchants and to others to continue the classification one step further. Accordingly, for 1919, 251 stores are classified by their rates of profit per \$100 of total net sales. The single store which had the highest rate of profit in relation to sales is taken as 100 per cent., and from this amount the respective rates of profits for the other stores are calculated in the form of percentages. In Tables 292 and 293 and in Chart VII, the different ratios of store operation are shown for stores having classified rates of profit expressed in this form.

Table 292 shows, for the 251 stores classified by size and by relative rates of profit per \$100 of total net sales, the cost of merchandise sold, the gross trading profit, the total operating expense, and the selling expense, all in terms of sales and expressed on an index or relative basis. The amounts for the stores in each classified group which had rates of profit of 60 per cent. or more of the rate for the store having the highest profit in terms of sales, are taken as 100 per cent. The table shows that as the relative rates

of profit increase, the costs of merchandise sold per \$100 of total net sales decrease; the gross margins per \$100 of total net sales increase; the total expenses per \$100 of total net sales decrease; and the selling expenses per \$100 of total net sales decrease. This condition holds for each group of stores when classified by size. If the entire number of stores is taken to illustrate these facts, it is found that the cost of merchandise sold, for the stores which had rates of profit less than 20 per cent. of the one which had the highest rate of profit, is 39.3 per cent. higher than the cost of merchandise sold for those which had the highest profit in relation to sales. The gross margin per \$100 of total net sales is 41.1 per cent. lower; the total expense per \$100 of total net sales is 51.7 per cent. higher; and the selling expense per \$100 of total net sales, 30.8 per cent. higher than the corresponding amounts for the store with the highest profit. Similar relationships hold also for the stores of different size.

In Table 292 the ratios of operation for stores of a given size-group are reduced to a common or index basis with the best group condition representing 100 per cent. In Table 293, on the other hand, the ratios of operation are reduced to an index basis, each profit condition, when based upon the best, being taken as 100 per cent. To illustrate these differences

TABLE 292

RATIOS OF OPERATION FOR STORES CLASSIFIED BY SIZE AND BY RELATIVE RATES OF NET PROFIT PER \$100 OF TOTAL NET SALES, 1919

Classified Total Net Sales (in 000's)	Index Numbers of Net Profit per \$100 of Total Net Sales Maximum: 100	Number of Stores	Index Numbers of Ratios of Operation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
			Cost of Merchandise Sold per \$100 of Total Net Sales												Gross Margin per \$100 of Total Net Sales				Total Operating Expense per \$100 of Total Net Sales				Selling Expense per \$100 of Total Net Sales																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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			Actual	0	20	40	60	80	100	120	140	160	180	Actual	0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	Actual	0	20	40	60	80	100	120	140	160																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Average	Average	251	124.8											98.1												127.1																128.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

for stores of different size, the group having net profits per \$100 of sales of less than 20 per cent. of the best condition may be selected. The cost of merchandise sold for the stores with sales of under \$40,000 is 100.7 per cent. of the average. The corresponding percentages for the other groups, in order of size, are 105.4, 105.1, and 96.4, respectively. The gross margins for the same stores bear the following relations to the total in order of size: 98.2 per cent., 86.7 per cent., 87.5 per cent., and 109.0 per cent. The corresponding percentages for total expense per \$100 of total net

sales are, respectively, 91.1, 84.1, 82.4, and 112.4, and for selling expense per \$100 of total net sales, 48.6, 74.0, 97.8, and 108.3. That is, as the stores increase in size, the costs of merchandise sold first rise and then fall; gross margins fall and then rise; total expenses fall and then rise; and selling expenses consistently rise. Similar tendencies hold for the stores having profits higher than those of the group selected for illustration.

Chart VII is drawn for the purpose of showing relative ratios of operation for the 251 stores classified on an index number basis according

TABLE 293

RATIOS OF OPERATION FOR STORES CLASSIFIED BY RELATIVE RATES OF NET PROFIT
PER \$100 OF TOTAL NET SALES, AND BY SIZE, 1919

Index Numbers of Net Profit per \$100 of Total Net Sales (Maximum 100)	Classified Total Net Sales (in '000's)	Number of Stores	Index Numbers of Ratios of Operation															
			Cost of Merchandise Sold per \$100 of Total Net Sales				Gross Margin per \$100 of Total Net Sales				Total Operating Expenses per \$100 of Total Net Sales				Selling Expenses per \$100 of Total Net Sales			
			Graphic				Graphic				Graphic				Graphic			
			Actual	0	20	40	60	80	100	120	Actual	0	20	40	60	80	100	120
Average	Average	251	100.0								100.0							
	Under \$40	28	102.2								95.7							
	\$40 to \$60	96	101.6								96.9							
	\$60 to \$100	87	101.9								96.3							
	\$100 & over	40	96.0								103.6							
0 to 20	Average	37	100.0								100.0							
	Under \$40	4	100.7								96.2							
	\$40 to \$60	10	105.4								85.7							
	\$60 to \$100	13	105.1								87.5							
	\$100 & over	10	96.4								109.0							
20 to 40	Average	128	100.0								100.0							
	Under \$40	15	104.1								91.5							
	\$40 to \$60	45	102.9								93.9							
	\$60 to \$100	66	100.3								99.0							
	\$100 & over	20	96.7								102.6							
40 to 60	Average	73	100.0								100.0							
	Under \$40	6	100.2								99.5							
	\$40 to \$60	32	106.2								92.0							
	\$60 to \$100	24	104.4								93.2							
	\$100 & over	9	96.4								111.6							
60 & over	Average	15	100.0								100.0							
	Under \$40	3	118.2								80.9							
	\$40 to \$60	9	110.4								96.1							
	\$60 to \$100	9	94.9								105.3							
	\$100 & over	1	70.0								126.2							

to rates of net profit per \$100 of total net sales. The rate for the store having highest net profit is taken as 100 per cent. In computing the relative rates for the operating ratios, the amounts for the stores having profits of 60 per cent. or more of the

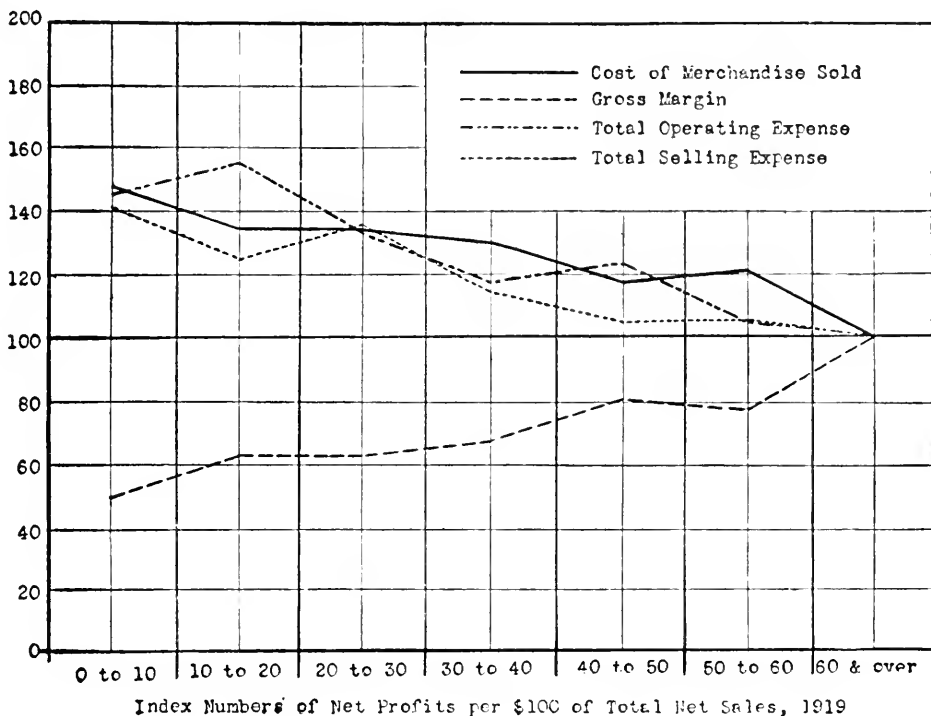
best condition is taken as 100 per cent.

The chart serves to illustrate more readily than Table 292 the direction of change in the ratios of operation for stores having different relative positions in respect to profits.

CHART VII

INDEX NUMBERS OF RATIOS OF OPERATION, 1919, FOR STORES CLASSIFIED BY RELATIVE RATES OF NET PROFIT PER \$100 OF TOTAL NET SALES, 1919

Per Cent.



VIII. CONCLUSION

It is difficult to itemize the various conclusions to which the discussion of selling expense in clothing stores has led. Certain of the more important of these conclusions, together with the amounts of expenditure for the different items of expense, are given in the Summary, and there is no necessity of repeating them here. It may be worth-while, however, to sketch in bold outline the relation between the expenses, and to indicate briefly the methods by which the analysis shows that merchants may reduce their expenses of operation.

The total selling expense, as defined, constitutes approximately 50 per cent. of the total operating expense and 10 per cent. of sales. When the amounts of selling expense are measured in terms of sales, they increase with the size of the store, as do also the components of the total—wages and salaries, advertising, and miscellaneous expense. The amounts of wages and salaries per \$100 of selling expense decrease, while the amounts of advertising and of other expense increase with the size of the store. From year to year, selling expense in terms of sales decreased, while in terms of total expense it increased.

As inventories per \$100 of total net sales increase, the amounts of selling expense per \$100 of total expense decrease and per \$100 of total net sales increase.

As the amounts sold per full-time sales-person increase, selling expense,

measured in terms of total expense and in terms of sales decreases.

As the fixture investments in relation to sales increase, the amounts of selling expense per \$100 of total expense and per \$100 of total net sales increase. When the amounts of selling expense are measured in terms of sales, for stores classified according to the amounts invested in fixtures per 100 square feet of floor space, they increase as these investments increase.

As the amounts of advertising expenditure per \$100 of total net sales increase, the amounts of selling expense per \$100 of total expense and per \$100 of total net sales likewise increase.

As the amounts of profits per \$100 of total net sales increase, the amounts of selling expense and of total expense in relation to sales decrease.

At various places throughout the volume, attention is called to the conditions under which the amounts of selling expense may be reduced. In brief, they are as follows: By increasing advertising in relation to sales, by decreasing the inventories in relation to sales, by increasing the rapidity of stock turnover, by increasing the amounts sold per full-time sales-person and per square foot of floor space, by paying salesmen on a commission basis, and by reducing the amounts invested in fixtures in relation to sales. The amounts of the reductions possible through these different means are shown in tabular

and graphic form at various places throughout the volume.

In conclusion, the Bureau wishes to explain its attitude in undertaking the study. Every care has been used to reduce to a comparable basis the various conditions of store operation and to express the amounts of expenses in terms which take account of them. It is not maintained that the study establishes the ideal conditions under which stores should operate. It does, however, measure those prevailing at the time the study was undertaken and sets up in concrete and measurable form, expenses and their tendencies to change under different conditions of store operation. That is, standards of expense distribution and expense tendencies have been determined.

It is hoped that this study will have a value beyond that associated solely with the distribution of clothing. The principles established, as well as the amounts of the different expenses would seem to have an interest to manufacturers of clothing, to bankers, to advertising agencies, and to others who co-operate in the field of distribution. The fundamental principles governing sales and selling expense are not restricted to one line of business, nor are they solely related to one phase of retail distribution. It is believed that the study is sufficiently broad in its scope and comprehensive in its method to develop basic facts and relationships which will have general and permanent value.

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